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RECORD, CASE No. 14,106.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1893.

TERM NO., 152.

HOWARD M. GILES, ELBRIDGE G. BROWN, ROBERT M. CUGLE, AND ISAAC P. SMITH, TRADING AS NOYES, SMITH & COMPANY, APPELLANTS,

vs.

JOHN L. HEYSINGER AND THE UNION TRUST COMPANY, ADMINISTRATOR OF THE ESTATE OF CHRISTIAN H. HERSHEY, DECEASED.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF NEW YORK.

FILED AUGUST 20, 1890.

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1 The President of the United States of America to Howard M. Giles, Elbridge G. Brown, Robert M. Cugle, and Isaac P. Smith, trading as Noyes, Smith & Company, Greeting:

You are hereby commanded that you and each of you personally appear before the judges of the circuit court of the United States of America for the southern district of New York, in the second circuit court, in equity, on the first Monday of May, A. D. 1884, wherever the said court shall then be, to answer a bill of complaint exhibited against you in the said court by Christian H. Hershey and John L. Heysinger, and do further and receive what the said court shall have considered in that behalf; and this you are not to omit under the penalty on you and each of you of two hundred and fifty dollars.

Witness Honorable Morrison R. Waite, Chief Justice of the Supreme Court of the United States, at the city of New York, [SEAL.] on the 20th day of March, in the year one thousand eight hundred and eighty-four, and of the Independence of the United States of America the one hundred and eighth.

TIMOTHY GRIFFITH, *Clerk*.

FRANCIS FORBES,
Compl'ts' Sol'r.

The defendants are required to enter appearance in the above cause, in the clerk's office of this court, on or before the first Monday of May, 1884, or the bill will be taken *pro confesso* against them.

T. G., *Clerk*.

2 Endorsed: I certify that the within writ was served upon the within defendant, Howard M. Giles, at the time and in the manner stated in the annexed affidavit of James D. Sinclair. Dated New York, April 24th, 1884. Joel B. Erhardt, U. S. marshal. Served Howard M. Giles with a copy Tuesday, April 1st, at 11.22 a. m. U. S. marshal's office, New York, April 1, 1884. I hereby depute James D. Sinclair to serve the within sub. in equity. Joel B. Erhardt, U. S. marshal. U. S. marshal's office, S. D. N. Y. Received Apr. 1, 1884.

3 United States Circuit Court, S. D. of New York.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER
vs.
HOWARD M. GILES, ELBRIDGE G. BROWN, ROBERT M. Cugle, and Isaac P. Smith, Trading as Noyes, Smith & Company. } In Equity.

James D. Sinclair, being duly sworn, deposes and says that he is of mature age; that on the 1st day of April, 1884, at 11.55 o'clock a. m., at No. 63 Leonard street, in the city of New York, he served the summons and complaint in this action upon Howard M. Giles, one of the defendants, by showing to him the original summons and leaving with him personally a copy of said summons and complaint.

And he further says that he knew the person served as aforesaid to be Howard M. Giles, one of the defendants mentioned and described in said summons and complaint.

JAMES D. SINCLAIR.

Sworn to before me this 24th day of April, A. D. 1884.

DAVID M. DOREMUS,
Notary Public (228), *N. Y. Co.*

Endorsed: U. S. circuit court. Filed Apr. 24, 1884. Timothy Griffith, clerk. Entered.

4 In the Circuit Court of the United States in and for the Southern District of New York.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER *vs.* HOWARD M. GILES, ELBRIDGE G. BROWN, ROBERT M. CUGLE, and ISAAC P. SMITH, Trading as Noyes, Smith & Company.	—— Session, 1884. In Equity. No. —.

To the honorable the judges of the circuit court of the United States in and for the southern district of New York:

Christian H. Hershey, resident of the city and county of Philadelphia and State of Pennsylvania, and John L. Heysinger, resident of Lower Providence, in the county of Montgomery, in said State, and citizens of said State of Pennsylvania, bring this their bill of complaint against Howard M. Giles, Elbridge G. Brown, Robert M. Cugle, and Isaac P. Smith, copartners doing business in the city of New York under the name and style of Noyes, Smith & Company, and citizens of the city and State of New York.

I. And thereupon your orators complain and say—

That heretofore and before the 5th day of August, A. D. 1879, one William Mills and your orator Christian H. Hershey, being then citizens of the United States, were the true, original, and first inventors of a certain new and useful improvement in hair-
5 crimpers not known or used before and not in public use or on sale for more than two years prior to their application for a patent therefor.

And your orators further show unto your honors that on or about the sixth day of February, A. D. 1879, and before the issuing of the hereinafter-mentioned letters patent, the said William Mills, by an assignment in writing dated the day and year last mentioned, did assign unto your orator Christian H. Hershey all his right, title, and interest in and to said invention, which assignment was duly recorded in the Patent Office.

And your orators further show unto your honors that on or about the 28th day of June, A. D. 1879, and before the issuing of said letters patent, the said Christian H. Hershey did assign unto your orator John L. Heysinger an undivided one-fourth part of his, said Hershey's, right, title, and interest in said invention, which assignment was duly recorded in the Patent Office.

And your orators further show that on the 5th day of August,
A. D. 1879, letters patent of the United States numbered 218,300 for
said invention were in due form of law, on the application of said
William Mills and Christian H. Hershey (they having complied in
all respects with the conditions and requirements of the then exist-
ing acts of Congress), issued and delivered to your orators in the
name of the United States and were signed by the Secretary of the
Interior and countersigned by the Commissioner of Patents, whereby
there was secured to your orators, their heirs and assigns, for
6 the term of seventeen years from the 5th day of August,
A. D. 1879, the full and exclusive right of making, using,
and vending the said invention throughout the United States and
territories thereof, as by said letters patent or a duly authenticated
copy thereof, in court to be produced, will fully appear.

And your orators further show that your orators have applied the said improvement to great practical use and have been, and but for the infringement hereinafter complained of would be still, in the undisturbed possession, use, and enjoyment of the exclusive privileges secured by the said letters patent and in receipt of the profits of the same.

And your orators further show unto your honors, as they are informed and believe, that the defendants, well knowing all the facts hereinbefore set forth, are now making, using, and vending the said patented invention or inventions, in some parts thereof substantially the same in construction and operation as in the said letters patent mentioned, the exclusive right to make, use, and vend which throughout the United States and the territories thereof is thus by law vested in your orators.

And so it is, may it please your honors, that the said defendants,
as your orators are informed and believe, without the license of your
orators, against their will, and in violation of their rights, have
made, sold, and used, and intend to continue still to make, sell,
and use, the said improvement within the southern district
7 of New York; all of which is in violation of the said your
orators' said letters patent.

To the end, therefore, that the defendants may, if they can, show reason why your orators should not have the relief hereby prayed, and that they may make a full disclosure of all the matters aforesaid, and upon their several corporal oaths and according to the best and utmost of their knowledge, remembrance, information, and belief full, true, direct, and perfect answer make to such of the several interrogatories hereinafter numbered and set forth as, by the note hereunder written it is required to answer—that is to say:

I. Whether the said letters patent were granted and issued as hereinbefore set forth.

II. Whether the said defendants have at any time, and during what period of time, made, sold, or used any, and how many, of the hair-crimpers constructed, in whole or in part, upon the principles and substantially in the manner described in said letters patent No. 218,300, and when and how the same were constructed. Describe minutely and in detail their construction and mode of operation.

And now, to the end that the defendants may be compelled to account for and pay over the income thus unlawfully derived from the violation of the rights of your orators as above, and be restrained from any further violation of said rights, your orators pray that your honors may grant a writ of injunction re-
8 straining the defendants from any further construction or sale or use, in any manner, of said patented improvements, or any part thereof, in violation of the rights of your orators as aforesaid, and that the improvement now in the possession of the said defendants may be destroyed or delivered up to your orators for that purpose.

And also that your honors, upon the rendering of the decree for an infringement as above prayed for, may proceed to assess or cause to be assessed, under your direction, in addition to the profits to be accounted for by the defendants as aforesaid, the damages your orators have sustained by reason of such infringement, and that your honors may increase the actual damages so assessed to a sum equal to three times the amount of such assessment, under the circumstances of the wilful and unjust infringement by said defendants, as herein set forth.

And your orators pray also for a provisional or preliminary injunction and for such other relief as the equity of the case may require and to your honors seem meet.

May it please your honors to grant unto your orators not only a writ of injunction conformable to the prayer of this bill, but also a writ of subpœna of the United States of America, directed to the said defendants, Howard M. Giles, Elbridge G. Brown, Robert M. Cugle, and Isaac P. Smith, and commanding them to appear and answer unto this bill of complaint and to abide and perform such order and decree in the premises as to the court shall seem
9 meet and be required by the principles of equity and good conscience.

JOHN L. HEYSINGER.
CHRISTIAN H. HERSHEY.

FRANCIS FORBES,
Solicitor and of Counsel for Complainants.

Note.—The defendants are required to answer each of the foregoing interrogatories, numbered 1 to 11, inclusive.

FRANCIS FORBES,
Solicitor and of Counsel for Complainants.

United States of America, }
Eastern District of Pennsylvania, } *ss:*

Christian H. Hershey, one of the complainants in the foregoing bill named, being duly sworn, says that so far as the statements therein contained are within his own knowledge they are true, and so far as they are derived from the information of others he verily believes them to be true; and he further says that he verily believes the said William Mills and C. H. Hershey in said bill named to be the original, true, and first inventors of the new and useful improvement in hair-crimpers which is described in the letters patent No. 218,300, mentioned in the foregoing bill, and he verily believes that the title of complainants as set forth in said bill is true.

CHRISTIAN H. HERSHEY.

Sworn to and subscribed before me this twentieth day of February, A. D. 1884.

WM. M. McKNIGHT,
Notary Public.

[SEAL.]

10 Endorsed: Sessions, 1884. United States circuit court, district of —. Christian H. Hershey and John L. Heysinger *vs.* Howard M. Giles, Elbridge G. Brown, Rob't M. Cugle, and Isaac P. Smith, trading as Noyes, Smith & Co. Bill in equity. U. S. circuit court. Filed Mar. 20, 1884. Timothy Griffith, clerk.

11 In the United States Circuit Court, Southern District of New York. In Equity.

HERSHEY *et al.*
vs.
GILES *et al.*

Appearance.

To the clerk of the court:

Please enter my appearance as solicitor for the defendants in the above-entitled cause.

WORTH OSGOOD,
Sol. for Def'd'ts.

Office, 43 Astor house, New York city, N. Y.

N. Y., May 5, 1884.

Endorsed: Circuit court of the U. S., southern dist. of N. Y., 2nd circuit. Hershey *et al. vs.* Giles *et al.* In equity. Appearance as solicitor for defendants. Worth Osgood, sol. for def'ts, # 43 Astor house, N. Y. U. S. circuit court. Filed May 5, 1884. Timothy Griffith, clerk.

12 Circuit Court of the United States, Southern District of New York.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER
vs.
HOWARD M. GILES, ELBRIDGE G. BROWN, Rob't M. Cugle, and Isaac P. Smith, Trading as Noyes, Smith & Co.
— Sess., 1884. In Equity. No. —.

Please enter my appearance for the complainants, Hershey and Heysinger, in the above cause.

JOSHUA PUSEY,
Of Counsel for Complainants, 905 Walnut St., Phila., Pa.

To Mr. Timothy Griffith, clerk.

March 10, '85.

Endorsed: C. C. U. S., S. D. of N. Y. In equity. April sess., 1884. Hershey *et al. vs.* Giles *et al.* Order to enter appearance for complainants. Joshua Pusey. U. S. circuit court. Filed Mar. 11, 1885. Timothy Griffith, clerk.

13 Circuit Court of the United States for the Southern District of New York.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER, Complainants,
vs.
HOWARD M. GILES, ELBRIDGE G. BROWN, ROBERT M. Cugle, and Isaac P. Smith, Trading as Noyes, Smith & Company, Defendants.
In Equity.

The answer of Howard M. Giles, Elbridge G. Brown, Robert M. Cugle, and Isaac P. Smith, copartners doing business in the city of New York under the name and style of Noyes, Smith and Company, and the above named and described defendants to the bill of complaint of Christian H. Hershey and John L. Heysinger, complainants.

The defendants and each of them, now and at all times hereafter saving and reserving to themselves all and all manner of benefits and advantage of exceptions that can or may be held or taken to the manifold errors and insufficiencies in the said bill of complaint contained, for answer thereto or to so much thereof as they are adadvised it is material or necessary for them to make answer to, answering, deny that heretofore and before the 5th day of August,
1879, William Mills, mentioned in said bill, and Christian H. Her-
shey, one of the complainants in this cause, being then citi-
14 zens of the United States, were the true, original, and first
inventors of a certain new and useful improvement in hair-
crimpers; and these defendants deny that the said invention was

not known before the said Mills and Hershey's invention or discovery thereof, and they deny that the same was not in public use or on sale for more than two years prior to their application for a patent therefor.

These defendants, further answering the said bill, aver that they have no knowledge and no information sufficient to form a belief as to whether on or about the 6th day of February, A. D. 1879, and before the issuing of the letters patent mentioned in the bill the said William Mills, by an assignment in writing dated the day and year last mentioned, did assign unto the said Christian H. Hershey all his right, title, and interest in and to said invention, or as to whether any such assignment was ever duly recorded in the Patent Office, and they therefore deny the allegations in that behalf in said bill contained, and leave the complainants to make such proof thereof as they may be advised is material.

These defendants, further answering the said bill, aver that they have no knowledge and no information sufficient to form a belief as to whether on or about the 28th day of June, A. D. 1879, and before the issuing of the letters patent mentioned in the bill the said Christian H. Hershey did assign unto John L. Heysinger, one of the
complainants in this cause, an undivided one-fourth part of
15 his, said Hershey's, right, title, and interest in said inven-
tion, or as to whether any such assignment was ever recorded in the Patent Office, and they therefore deny the allegations in that behalf in said bill contained, and leave the complainants to make such proof thereof as they may be advised is material.

These defendants, further answering the said bill, admit that on the 5th day of August, A. D. 1879, letters patent of the United States numbered 218,300 were issued on the application of William Mills and Christian H. Hershey; but they deny that the same were issued according to law, or that thereby there was secured to the complainants, their heirs and assigns, for the term of seventeen years from the 5th day of August, A. D. 1879, the full and exclusive right of making, issuing, and vending the said invention throughout the United States and the territories thereof; and these defendants deny all the allegations in that behalf in the said bill contained, and leave the complainants to make such proof thereof as they are advised is material.

And these defendants, further answering, deny that the complainants have applied the said improvement to great practical use, and they deny that the complainants have been, and but for the infringement in the bill of complaint complained of would still be, in the undisturbed possession, use, and enjoyment of the exclusive privileges alleged to be secured by the said letters patent and in receipt of the profits of the same; and these defendants deny all the
allegations in that behalf in the said bill contained, and
16 leave the complainants to make such proof thereof as they
are advised is material.

And these defendants, further answering the bill, deny that, well knowing any or all of the facts averred in the said bill, they are now making, using, and vending the said patented invention, the exclusive right to make, use, and vend which throughout the United States and the territories thereof is alleged to be vested in the complainants, but admit that they have sold an invention different in its entirety, but in some parts substantially the same in construction and operation, as the said patented invention, and deny that the invention sold by them as aforesaid was an infringement of the patented invention, and that such sale was wrongful and in violation of any rights alleged to have been secured to the complainants by the patent in the said bill referred to.

And these defendants, further answering the said bill and in response to the interrogatories therein, make answer as follows:

I. By admitting the granting of the said letters patent, but whether according to law they are not informed.

II. By denying that they have at any time made, sold, or used any hair-crimpers constructed in accordance with or in any way infringing the letters patent No. 218,300, and by admitting that between the month of October, A. D. 1883, and the month of April, A. D. 1884, they sold about forty-eight great gross of hair-
17 crimpers made before and during the said months aforesaid, and each consisting of a fine strip of wire or metal enclosed in a bulky envelope of paper, having a braided covering cemented to it and throughout its length, and operated by winding the hair upon its central portion and then bending its ends over and upon the hair after being so disposed.

And these defendants, further answering the said bill, deny each and every other allegation therein contained except as herein admitted.

And these defendants, further answering, aver that they are informed and believe it to be true that the said Mills and Hershey were not the original or first inventors or discoverers of the said alleged invention or discovery or any material or substantial part thereof mentioned in said letters patent in said bill referred to, but they aver on information and belief that the same or every material or substantial part thereof was in fact invented and discovered and made in Bristol, Connecticut, and sold in New York city and elsewhere in the United States by others than the said William Mills and Christian Hershey—that is to say, by Gilbert H. Blakesley, Julius Wright, Edward L. Carrington, Lora W. Robinson, Sophia C. Bracken, Louise Bracken, Mrs. Helen H. Tyler, Mrs. Henry Clay Butler, Miss Augusta Churchill, Mrs. Helen M. Palmiter, Mrs. Elizabeth M. Sikes, Miss Henrietta Sikes, Mrs. Henry Paul, Miss Maria A. Blakesley, Mr. Geo. Stevens, Mrs. Geo. Stevens, Miss Minnie Stevens, Miss Nellie Wright, Mrs. Julius Wright, Mrs. Nathalie Raabe,
18 Mrs. Carrie Morehouse, Mrs. Minnie Daly, Mrs. George H. Gowdy, Mr. Timothy Robinson, Mr. Frank Hubbell, Mr. Hiram Wilcox, Mr. Edward Curtis, all of Bristol, in the county of Hartford and State of Connecticut; Mr. Thomas Porter, Mrs. Thomas Porter, both of Mont Clair, N. J.; Mr. Henry C. Robinson, residing at No. 504 E. 87th street, New York city; Mr. Joseph L. Porter, residing at No. 504 E. 87th street, New York city; Mr. Joseph Maria

La Forgue, of Ansonia, Connecticut, and Mrs. Nettie Burr, of Meriden, Connecticut.

And these defendants aver and charge that the said Mills and Hershey, well knowing that the said invention or every material and substantial part thereof had been invented and discovered and made and sold and used in the United States by the said parties above named, did surreptitiously, unjustly, and unlawfully apply for and obtain the said patent for the alleged invention and discovery mentioned and set forth in the letters patent in the said bill referred to, and that by reason of the premises said letters patent are unlawfuly, oid, and of no effect.

And these defendants, further answering, say that they are informed and believe the said letters patent are void and of no effect in law because the said alleged invention or some material or substantial part thereof has been, prior to the said alleged invention or discovery thereof by the said Mills and Hershey, patented in and
by the following patents of the United States, viz: By patent
19 of P. Ceredo, dated September 20, 1870, No. 107,596; also by
patent of W. E. Frost, dated July 11th, 1865, No. 48765.

And these defendants, further answering, say that the said letters patent are void and of no effect in law, because the said alleged improvement, invention, and discovery has been in public use and on sale by the parties above named in the city of New York, in Bristol, Conn., and elsewhere in the United States for more than two years before the application of the said Mills and Hershey for a patent therefor, and that said alleged invention or discovery has been abandoned to the public.

And these defendants, further answering, say that they are informed and believe that the said letters patent are inoperative and invalid, for that, as they are informed and believe, the said Mills and said Hershey were in no way joint inventors of said alleged improvement in hair-crimpers and in no way entitled to any joint patent thereon as alleged in the said bill of complaint to have been issued or granted.

And these defendants, further answering, say that the article sold by them is very different in its entirety from the article described in the letters patent referred to in the said bill, and that these defendants have not infringed the same or the rights and privilege, if any, secured or claimed to be secured to the complainants by the said letters patent.

And these defendants, for a further and separate defense to the
said bill, aver and charge that heretofore and before the 17th
20 day of October, A. D. 1883, one Gilbert H. Blakesley, of the
town of Bristol, in the county of Hartford and State of Connecticut, being then a citizen of the United States of America, was, as these defendants are informed and believe, the original, true, and first inventor and discoverer of a new and useful invention in hair-crimpers, and that the said invention was not known and used by others before his invention and discovery thereof and was not at the time of his application for letters patent of the United States therefor in public use or on sale with the consent and allowance of

the said Gilbert H. Blakesley, as the inventor and discoverer thereof, under the provisions of the statute of the United States in such case made and provided; that said Gilbert H. Blakesley made application, in writing, to the Com'r of Patents of the United States to grant letters patent of the United States for his said invention and discovery, and paid into the Treasury of the United States the fees required by law, and then, there, and thereafter duly complied with all the requirements of the statutes of the United States in such case made and provided prior to the granting of the letters patent hereinafter mentioned; that on or about the 29th day of April, A. D. 1884, letters patent of the United States, having date that day, were duly issued to the said Gilbert H. Blakesley, according to law, whereby there was secured to him, his heirs or assigns, for the term of seventeen years from the 29th day of April, A. D. 1884, the full and exclusive right of making, constructing, using, and vending to others to be used the invention or discovery aforesaid, the description whereof was given 21 in the words of the applicant, the said Blakesley, in the schedule annexed to said letters patent and made part of the same. The said letters patent were issued in the name of the United States of America and were signed by the acting Secretary of the Interior and countersigned and sealed by the Commissioner of Patents and were numbered No. 297,906 and were issued and delivered to the said Gilbert H. Blakesley; that the hair-crimpers sold by them were made in accordance with the invention disclosed in the said patent referred to, and they pray that the said letters patent and the schedule annexed hereto aforesaid may be admitted and taken as a part of their answer, and to the original or a duly authenticated copy thereof, now in their possession and ready to be produced in court, they crave leave to refer.

These defendants, further answering, aver and charge that the articles sold by them and in the said bill of complaint referred to were manufactured and constructed in accordance with the invention disclosed, claimed, and covered in the letters patent issued and granted as aforesaid to the said Gilbert H. Blakesley; and these defendants are informed and believe that the hair-crimpers sold by them and constructed in entire accordance with the said patent of the said Blakesley are the same as the hair-crimpers mentioned, referred to, and set forth in the said bill of complaint as being infringements of the complainants' patent.

22 And these defendants, further answering said bill, deny that the complainants are entitled to any relief, judgment, order, or decree against these defendants or any part thereof as prayed for in said bill, and these defendants insist that they are not bound to make any further or other answer to the said bill or any part thereof than is heretofore set forth.

And these defendants, further answering said bill, deny all and all manner of unlawful combination of the said bill charged; without this, that there is any manner, cause, or thing in the said bill of complaint contained material or necessary to make answer thereto and not herein and hereby well and sufficiently answered, confessed, traversed, avoided, or denied is true to the knowledge and belief of the defendants; all of which matters and things the defendants are ready and willing to aver, maintain, and prove as this honorable court shall direct, and humbly pray to be hence dismissed with their reasonable costs and charges in this behalf most wrongfully sustained.

HOWARD M. GILES.
ELBRIDGE G. BROWN.
ROBERT M. CUGLE.
ISAAC P. SMITH.

GEORGE D. SEYMOUR,
Of Counsel for Def'ts.
WORTH OSGOOD,
Sol. for Def'ts; Office, #43 Astor House, N. Y. City.

23 UNITED STATES OF AMERICA, *Southern Dist. of New York.* }

STATE OF NEW YORK, *City and County of New York,* } *ss:*

Robert M. Cugle, being duly sworn, does depose and say that he is one of the defendants named in the foregoing answer subscribed by him; that he has read the same and knows the contents thereof, and that the same is true of his own knowledge except as to the matters therein stated on information and belief, and as to those matters he verily believes it to be true.

ROBERT M. CUGLE.

[SEAL.] Subscribed and sworn to before me this 31st day of May, A. D. 1884.

JOHN J. WARD,
Notary Public, Kings Co., N. Y.

Certificate filed in N. Y. Co.

Endorsed: U. S. circuit court, southern dist. of N. Y. Hershey & Heysinger *vs.* Giles, Brown, Cugle, & Smith, trading as Noyes, Smith & Co. In equity. Def'd'ts' answer to bill of complaint. Worth Osgood, sol. for def'd'ts, 43 Astor house, N. Y. U. S. circuit court. Filed May 31, 1884. Timothy Griffith, clerk.

24 U. S. Circuit Court, Southern District of New York.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER
vs.
HOWARD M. GILES *et al.*
} In Equity.

The Replication of Christian H. Hershey and John L. Heysinger, the Above-named Complainants, to the Answer of Howard M. Giles et al., Defendants.

These repliants, saving and reserving to themselves, now and at all times, all and all manner of benefits and advantage of exception which may be had and taken to the manifold insufficiencies of the said answer, for replication thereto say that they will aver, maintain, and prove their bill of complaint to be true, certain, and sufficient in the law to be answered unto, and that said answer of the said defendants is uncertain, untrue, and insufficient to be replied unto by repliants; without this, that any other matter or thing whatsoever in the said answer contained material or effectual in the law to be replied unto and not herein and hereby well and sufficiently replied unto, confessed and avoided, traversed or denied, is true; all which matters and things the repliants are and will be ready to aver, maintain, and prove as this honorable court shall direct, and humbly pray as in and by their said bill they 25 have already prayed.

FRANCIS FORBES,
Solicitor for Complainants.

Endorsed: U. S. circuit court, S. D. of New York. Christian H. Hershey and John L. Heysinger against Howard M. Giles *et al.* Replication. F. Forbes, attorney for complainants, 137 Broadway, New York city. U. S. circuit court. Filed Jun- 12, 1884. Timothy Griffith, clerk.

26 Circuit Court of the United States, Southern District of New York.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER
vs.
HOWARD M. GILES *et al.*, Trading as Noyes, Smith & Co.
} April Sess., 1884.
In Equity.

And now, to wit, this 18th day of March, 1885, counsel for complainants hereby suggests the death of Christian H. Hershey, one of the above-named complainants, and the substitution of The Union Trust Company (of Philadelphia, Pennsylvania), the duly appointed administrator of the estate of said Christian H. Hershey, dec'd, as co-complainant.

JOSHUA PUSEY,
Of Counsel for Complainants.

Endorsed: Circuit court of the U. S., southern dist. of New York. Hershey *et al.* *vs.* Giles *et al.* April sess., 1884. In equity. Suggestion of death of Christian H. Hershey (one of the complainants) and substitution of The Union Trust Company, administrator. Joshua Pusey, of counsel for complainants, 905 Walnut St., Philada., Pa. U. S. circuit court. Filed Mar. 18, 1885. Timothy Griffith, clerk.

27 In the Circuit Court of the United States in and for the Southern District of New York.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER
vs.
HOWARD M. GILES, ELBRIDGE G. BROWN, Robert M. Cugle, and Isaac P. Smith, Trading as Noyes, Smith & Company.

April Sessions, 1884.
No. —. In Equity.

Proofs Taken on Behalf of the Complainants, before Francis S. Brown, Examiner, at the Office of Joshua Pusey, Esq., Solicitor for Complainants, No. 905 Walnut St., City of Philadelphia.

JULY 25, 1884—10.30 a. m.

Meeting pursuant to notice.

Present: Joshua Pusey, Esq., solicitor for complainants; Geo. D. Seymour, Esq., solicitor for respondents.

Complainants' counsel offers in evidence a printed copy of the specification and drawings of letters patent, dated August 5, 1879, No. 218,300, granted to William Mills and Christian H. Hershey (said Mills assignor to said Hershey; said Hershey assignor of one-fourth of his right to John L. Heysinger), for improvement
28 in hair-crimpers; it being agreed by defendants' counsel that said printed copy shall have the same effect as evidence as the original letters patent, or a duly certified copy thereof.

CHRISTIAN H. HERSHEY, a witness called in behalf of complainants, being duly affirmed and examined by Mr. PUSEY, did depose and say:—

Q. 1. What is your name, age, residence and occupation?

A. 1. Name, Christian H. Hershey; age, 48; residence, No. 1532 Columbia avenue, this city; occupation, manufacturer, and I am a member of the Philadelphia Novelty Manufacturing Co., and one of the plaintiffs in this suit.

Q. 2. How long have you been engaged in the manufacture of hair-crimpers, such as described in the Mills & Hershey patent, upon which this suit is brought?

A. 2. About six years.

Q. 3. To what extent have you manufactured and sold these crimpers?

A. 3. Since we commenced, up to date, about fifty to sixty thousand great gross.

Q. 4. Is your firm, the Philadelphia Novelty Manufacturing Co., the sole manufacturers of these crimpers?

A. 4. Yes, sir.

Q. 5. Please produce a sample of crimpers made by your firm under said patent.

A. 5. I now produce a box containing a number of the packages of the crimpers.

Box of crimpers offered in evidence and marked "Complainants' Exhibit A."

Q. 6. Are you acquainted with the defendants in this cause, Noyes, Smith & Company, and have you had any transactions with them; if so, please state the facts?

A. 6. I know Mr. Giles, their buyer, and have had conver-
29 sations with him in reference to the crimper. This was in the spring of 1884, in the beginning of February. We were informed that they were handling an infringement of our crimper. I called on them to satisfy myself of the fact. I was shown, by one of their clerks, whose name I do not know, the crimper of Mr. Blakesley's manufacture; also our crimper, which he had on the shelf side by side with the other. He then called their buyer, Mr. Giles, one of the firm. We tried to buy some of the Blakesley crimpers. In conversation with him, he stated that they had sold and delivered about fifty great gross of the Blakesley crimper; that Mr. Blakesley claimed to have a patent on his crimper antedating ours by two years. His clerk, who was present during this conversation, told me that they had sold in addition to the fifty great gross of the Blakesley crimper, four hundred great gross in advance, and that they were expecting the goods from Mr. Blakesley in a few days.

Q. 7. Can you produce a sample of the Blakesley crimper, such as you saw in Noyes, Smith & Company's establishment, and such as Mr. Giles and his clerk had told you the firm had been selling?

A. 7. I now produce a box containing several packages of Blakesley crimpers, such as referred to in the question.

Q. 8. You did not procure this box of crimpers from Noyes, Smith & Co.?

A. 8. Not direct; they having declined to sell me any. We then purchased these from another house who bought of Noyes, Smith & Co.

Q. 9. State whether or not Mr. Giles informed you that they were the exclusive agents for the sale of these Blakesley crimpers in New York.

A. 9. I have no recollection now that he did.

Q. 10. You are positive that the box of Blakesley crimpers you have produced is identical with those which you saw at Noyes, Smith & Co.'s place?

A. 10. I am.

30 Q. 11. Please examine one of the Blakesley's crimpers, which I have taken from the box, and state what you find to be the construction of it.

A. 11. I find the core to be made of flexible brass and covered with a thread braided on similar to ours. I find two pieces of paper laid on each side of the flexible brass, and afterward covered over with a thread, and the thread cemented on the core or the body of the crimper. It is covered in this manner the entire length of the crimper.

Box of Blakesley's crimpers offered in evidence, and marked "Complainants' Exhibit B."

Q. 12. About how much money have you expended since the beginning of the manufacture of your crimpers, for advertising and other expenses for introducing your crimpers into the market?

A. 12. Upwards of four thousand dollars.

Q. 13. State whether or not you have known since you began the manufacture, or previous thereto, of any other crimper, similar to yours, being sold in the market.

A. 13. Long after the introduction of our crimper, in offering it to a certain wholesale house in this city, I was shown a crimper, covered with silk thread, and tipped at each end with metal. Before that I never saw or heard of anything of any kind of a covered crimper.

Q. 14. Had you or not, any communication or business transaction with the defendants, Noyes, Smith & Co., before you called upon them, as stated?

A. 14. We had letters of inquiry in reference to our lowest price for our crimpers; we referred them to our agents, Cook & Valentine, 49 Walker St., New York, stating that they would give them best prices, and that they were our wholesale agents.

Q. 15. What are the comparative wholesale selling prices of your crimpers and the Blakesley crimpers?

A. 15. The price of our crimper is $2.40 a great gross for
31 short crimpers, and $3.60 per great gross for long crimpers.
We find that the Blakesley crimper is offered at $2.00 per great gross for short crimpers, and $3.00 per great gross for long crimpers.

Cross-examination by Mr. SEYMOUR:

X Q. 16. What were the circumstances of your making the invention disclosed in your patent?

A. 16. Being in the novelty business, we do a good deal of thinking in the way of getting up new articles for the trade. I remarked to my wife that I was looking for some new idea in the way of a ladies' article, that would be likely to have a good sale; and she suggested that, if I could find some means of covering lead, for the use of crimping and frizzing hair, I would have a good selling article. The idea at once suggested itself to me that, if I could find some means of permanently covering a metal in proper length, ready for use at all times, it would answer the purpose. After going to our manufactory, I immediately commenced experimenting, together with my machinist. After experimenting for a considerable length of time, trying various modes of perfecting the article, we finally succeeded in producing what we now have—a perfect hair-crimper.

X Q. 17. What part of the invention did you make personally?

A. 17. I cannot say; we worked together.

X Q. 18. Was it your idea of cementing the thread to the strips of metal, or that of Mr. Mills?

A. 18. That was Mr. Mills' idea, as near as I can recollect.

X Q. 19. Did you examine the crimper which was shown you in the month of February, 1884, at the place of business of Noyes, Smith & Co.?

A. 19. Yes, sir.

X Q. 20. Did you take it to pieces?

A. 20. Yes, sir. I stripped it.

32 X Q. 21. Was the metallic strip the same as in the strip you offer as an exhibit?

A. 21. Yes, sir.

X Q. 22. Do you know by what process that crimper is made?

A. 22. I do not.

CHRISTIAN H. HERSHEY.

Isaac W. Heysinger, a witness called on behalf of complainants, being duly affirmed and examined by Mr. Pusey, did depose and say:

Q. 1. What is your name, age, residence, and occupation?

A. 1. Name, Isaac W. Heysinger; age, 42; residence, No. 1426 Girard avenue; occupation, physician; I am one of the firm of the Philadelphia Novelty Manufacturing Co.

Q. 2. Are you acquainted with the defendants, Noyes, Smith & Co., the defendants in this suit, and have you had any transactions with them?

A. 2. I am acquainted with the defendants, and have had two interviews with members of the firm, about the 7th and 8th of February, 1884, or both days; I had been informed that Noyes, Smith & Co. were selling an imitation crimper, made in infringement of the Mills & Hershey patent; Mr. C. H. Hershey, a member of the firm, and myself, went over to see it; on the evening of the first day of the two upon which we visited Noyes, Smith & Co., we inquired if they sold hair-crimpers; we were directed to go to the third floor, where they would be shown us; we did so, and in reply to the same question were told by the clerk in charge of the floor, that they sold the Madame Louisa hair-crimper, which he proceeded to show us; the Madame Louisa, or the Madame Louie, more properly, is the universally known genuine hair-crimper, made by us, under the Mills and Hershey patent; instead of showing us the Madame Louie, 33 he showed us the Blakesley imitation; we tried to purchase some, but he inquired who our house was, and on our stating that we were from Philadelphia, he asked us if we were the makers of the Madame Louie crimper, of which they also had some; on replying affirmatively, he declined to sell us any, as it might get the firm into trouble, without instruction, but referred us to Mr. Brown, a member of the firm then present; I examined the Blakesley crimper, which I recognized as a modification of the crimper brought us by Mr. Griggs, of the firm of S. A. Castle & Co., some time previously, as made by Blakesley, of Bristol, Conn., but modified to conform more closely to the genuine crimper for which it was obviously designed to be substituted, and for which it was offered by the employee of Noyes, Smith & Co. for sale. The tin tips, which in the "Castle Exhibit" shown us were upon the ends, were not now there, and the brass strip was broader than in those shown us by Castle & Co. The general construction, however, outside these feat-

ures being the same. The box of crimpers, "Complainants' Exhibit B," are precisely such as those we then saw at Noyes, Smith & Co.'s. We then saw Mr. Brown, of the firm, who said that Mr. Giles had charge of the matter and that we should call in the morning and see him, Mr. Giles being one of the firm. We did so and saw Mr. Giles. He took the box of crimpers marked "Complainants' Exhibit B," in his hands, recognized them as being the Blakesley crimpers, said that Blakesley had a patent on them two years before the Mills & Hershey patent, as Blakesley had so stated to him. I then handed him a bunch of the crimpers and pointed out that they were not marked patented. He said "That is so." I then showed him that they were marked "Patent applied for," which showed that they were not patented. He said that he was deceived in the matter and that the firm would sell no more of them. He said that they had sold but about fifty great gross altogether, but I told
34 him that the employee in charge had stated the evening before that they had four hundred great gross sold, which they had not yet been able to obtain from Mr. Blakesley. He said rather than have any trouble they would countermand the order and sell no more; but they did not do so, but continued to sell them, as we were informed by letter from them subsequently. On passing out we met Mr. Brown on the steps, who asked us how we made out, and said he didn't think we could hold them, as these crimpers were sold on commission account by their house and not bought outright. The acknowledgment was made by both Mr. Giles and Mr. Brown that the crimpers in the box marked "Complainants' Exhibit B," were the Blakesley crimpers sold by them. This terminated the interview.

Q. 3. Please examine one of the crimpers in "Complainants' Exhibit B," and explain its construction.

A. 3. It consists of a flattened strip of brass, supplemented by two strips of paper, one on each side; these strips of paper are glued or cemented with some adhesive substance upon the sides adjoining the brass, so as to unite the brass and paper together along the entire length. The cement is also found on the outside of these paper strips, with which the braided covering, which extends along the crimper, is in contact; that is, the braided covering is cemented to the paper strips, and the paper strips are cemented to the brass core, so that the adhesive paper acts as a cementing material (as, for instance, a wafer when used for sealing letters), to prevent the core from slipping out of the braided cover, or the braided cover from slipping from the core; doubtless the brass would be too thin to work satisfactorily without the increased body furnished by the paper strips, as the three together make up about the same bulk as the lead core of the Madame Louie crimper, which I have been engaged for a number of years in the manufacture of.

No cross-examination.

ISAAC W. HEYSINGER.

35 *Rebuttal Testimony.*

In the Circuit Court of the United States in and for the Southern District of New York.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER
vs.
HOWARD M. GILES, ELBRIDGE G. BROWN, Robert M. Cugle, and Isaac P. Smith, Trading as Noyes, Smith & Company

April Sess., 1884. No. —. In Equity.

Proofs taken on behalf of the complainants, in rebuttal, before Francis S. Brown, examiner, at the offices of Joshua Pusey, Esq., solicitor for complainants, No. 905 Walnut street, city of Philadelphia.

MARCH 12TH, 1885—10.30 a. m.

Met pursuant to notice.

Present: Joshua Pusey, Esq., solicitor for complainants; George D. Seymour, Esq., solicitor for respondents.

ISAAC W. HEYSINGER, being duly sworn and examined by Mr. PUSEY, did depose and say:

Q. 1. What has been your experience in the manufacture of hair-crimpers and your knowledge thereof generally?

36 A. 1. I have been engaged in the manufacture of the Mills & Hershey hair-crimper, the crimper on the letters patent of which this suit has been brought, since about 1880. I was, however, well acquainted with the manufacture of this crimper from the time it was first put upon the market and before, that is, from the time of its invention by Mr. Hershey and Mr. Mills. I acted as counsel and adviser to some extent for Mr. Hershey, who was a personal friend of mine and in whose family I practiced medicine, they being patients of mine at various times. I made the arrangement with Mills for the assignment of his interest to Hershey, and was the attorney who made application and procured letters patent for Mr. Hershey and J. L. Heysinger for this crimper.

Q. 2. Have you a practical and personal knowledge of the manufacture of these crimpers and the details thereof?

A. 2. I have; I devised considerable of the machinery for perfecting and cheapening the process of manufacture, and have had charge of the manufacture directly since my connection with the crimper in 1879 or 1880.

Q. 3. Had you seen and examined any other crimpers previous to the Hershey & Heysinger patent?

A. 3. I had; I knew of a crimper made with a piece of wire covered with tow and surrounded by a coating of kid. The tow was bulged up in the middle to prevent stripping or exposure of the tow, as the ends of the kid were almost closed. This was a hand-

made crimper. I also knew that slips of paper had been used to fold up the hair around, the ends of which were afterward bent over and twisted together. I also knew that pieces of tin had been similarly used and the foil from tea-boxes had been used in the same way. I also knew in 1878 that a crimper was sold in Philadelphia, which consisted of a flat strip of brass or copper, about a quarter of an inch wide, covered with a coating of crimson or scarlet cotton braid, like hoopskirt wire, and having an external
37 coating of scarlet or crimson silk braid about two and a half
or three inches long, and having the ends protected from fraying by an external sheet-metal tip or clip bent over the outside of the ends, with rounded sides fronting toward the centre. These clips extended in about a quarter of an inch from the ends, and were evidently pitched on singly after the strand had been cut into lengths. They were silvered or silver plated, and each one was provided with a dent or counter-sink, which was driven into the braided coverings, so as to indent the same and also to indent the brass or copper strip beneath; the object of this dent was evidently to hold the clip on; the dent also raised the edges of the clip from the braided coverings. I had occasion to investigate these crimpers very carefully, in conjunction with Mr. C. H. Hershey, who was then desirous of securing a patent for his crimper, which he had introduced to the market about eighteen months before. For this purpose we bought some boxes of these crimpers from Messrs. Joel J. Bailey & Co., or Young, Smyth, Field & Co., or both, on Market street, Philadelphia, and were told that they came from Porter Bros., in New York, but we thought that they were a foreign manufacture. The object of pursuing a very critical examination of these crimpers was that Mr. Hershey's crimper, which he was then making, had the braiding directly cemented to the metal core continuously, and he wished to apply for a patent. As Mills was a joint inventor with Hershey, it was necessary to buy Mills' interest, and Mr. Hershey did not wish to spend the money for this purpose unless his patent could be sustained if it should be granted. For this purpose we bought the above-named boxes of these crimpers, which were put up in a bronze-colored slide box, labeled "hair-crimpers," and containing one dozen each, for which we paid twenty-five cents per box. I first pulled some of the clips from these crimpers, and the ends of the braid were loose from the metal, and readily stripped
38 back. I then took the core out, and laid it between moist
paper, under a book, and dried it there; the paper did not adhere. There was no adhesion. I then took a powerful double magnifying glass which Mr. Hershey owned, and tried for adhesion between the different fibres of the braid on these crimpers; there was no stiffening or adhesion on the outer part of the silk braid, nor was the braid discolored, nor did it show any evidence of moisture, which would usually show on silk. There was no adhesion between the fibres beneath the outer surface of the cotton braid. I thought I detected a sort of varnish on the outer surface of the cotton-braided coating, but only on the protuberances formed by the crossing of the threads, and on some of these it was difficult to detect there;

and Mr. Hershey denied that it could be detected, but I took some of them home with me, and cut them to pieces, split them lengthwise, tried them with the taste, and concluded that there was some sizing or some substance or other that made a varnish, where the cotton and silk braid coverings lay together. Mr. Hershey thought that this varnished surface was due to the hard braiding of the silk over the cotton, but I was satisfied that there was some varnish, for when a moist thumb was drawn over the cotton, it showed the presence of some sizing material there, which it did not do when split open, and the thumb drawn along the inner surface of the cotton.

Q. 4. State whether or not you have seen and examined hair-crimpers identical with those just described, and if so, when and where and how were they put up.

A. 4. I have seen crimpers identical with those in every respect, so far as observation, chemical and microscopical tests, etc., could determine. The crimpers which I have last described above were a portion of the same manufacture as those exhibited by the defense in this case in the testimony of Mrs. Henry K. Paul, marked "Defendants' Exhibit No. 1." I recognized them as soon as they
39 were produced and I had an opportunity to examine them,
which I did at the time when they were offered in evidence and at which time I was present. I am satisfied, from my knowledge as a mechanic, that no two packages of crimpers could be made and put up by different parties to resemble each other so closely as these did in all respects, unless one was made as a direct fac-simile of the other, at great labor, and I doubt even then if it could be done. My examination of this crimper in 1878 was very elaborate, extending over a considerable time and made with many samples; and upon the result of those examinations showing no cement, Hershey bought out Mills' interest in the invention and applied for and obtained a patent. The crimper, "Defendants' Exhibit No. 1," when offered in evidence consisted of a bronze-colored box, having a blue label marked one dozen hair-crimpers, precisely like the samples purchased by me in 1878, and the box, labels and crimpers were all apparently identical with those, and I am satisfied that they were identical.

Q. 5. Were you present at the taking of, and did you hear and understand fully, the testimony of all the defendants' witnesses in this cause?

A. 5. I was present at both hearings in Bristol, Connecticut, in September and October, 1884, and heard and understood all the testimony of all the witnesses.

Q. 6. Some of these witnesses, especially Mrs. Henry K. Paul, in answer to questions 8 and 9, refer to the use, by Mr. Blakesley in 1876, of a sizing of the cotton-braided core in the manufacture of Mr. Blakesley's crimpers; what is generally understood in the manufacturing arts as a sizing?

A. 6. A sizing in textile manufactures is the process of applying some stiffening substance to a fabric to give it stiffness and body, to correct flabbiness and to enable the folds of material to retain a

more fixed position; also to give a substance a surface suita-
40 ble for embossing or printing upon; also to improve it by
giving it a polished or surfaced appearance.

Q. 7. How is sizing usually done?

A. 7. A sizing is a thin solution of fish glue, gum, resin, or other liquid capable of being applied, and when dry, receiving this polish. It must be thin, or else it becomes what is known as filling or loading upon the surface; and it must not be sticky when dried, or liable to become sticky in use. Instances are: paper muslin, size muslin, book-binders' cloth, the sizing which is applied to damp walls before being papered, the sizing of cotton thread, or yarns or ropes, and anywhere a smooth even surface is sought. It is well known, and in universal use. In sizing textile fabrics, they are usually passed down and over a roll partly immersed in a sizing bath, and carried up the opposite side, over and between steam-heated rolls. In the Loiseau artificial coal process, which was in use many years ago, he formed waste coal or coal dust into lumps as large as an egg. These were made and delivered by machinery upon a broad endless belt, which carried them down under a bath of a solution of resin, and up and out the opposite side; this gave them a hard surface, and enabled them to resist handling. Threads are sized by being passed through a packing box containing a saturated sponge or like material. The object in all these cases is the same, and the variation in means is purely mechanical. Sizing is essentially surfacing.

Q. 8. What is the difference in the mode of application and effect between sizing and cementing?

A. 8. Sizing requires a much thinner solution; cementing requires the application which shall stand up from the surface, and not amalgamate with the surface, so as to be interposed as an actual body between the one surface to be cemented and the other surface to be cemented. Cements are always applied to the con-
tiguous or adjacent surfaces, so that the greatest body of
41 cement shall be at the place where the greatest amount of
adhesion is to be secured; in sizing, this does not matter, as
if any part of the fabric in its body is sized, the whole body is sized.

Q. 9. What is the effect in the operation of applying a solution of sizing or cement, such as gum dextrine to a cotton braiding?

A. 9. It absorbs it with difficulty; cotton yarn, as delivered from the mills is repellant to water, and still more so to water containing a gum; it is quite difficult to make such solution penetrate such braiding.

Q. 10. What is the effect, in your opinion as an expert, of passing the cotton-braided metallic core through a solution of dextrine and then covering this braided core with a silk braiding as described by defendants' witnesses, Edward L. Carrington and Gilbert H. Blakesley, referring to the manufacture of "Defendants' Exhibit No. 1"?

A. 10. The effect would be to take up a certain portion of this solution in spots, but I do not think the solution would penetrate into the interstices of the cotton braiding for a considerable time.

It is well known that lint which is made of linen is quite absorbent and is used in surgery, but cotton batting cannot be so used, as it will not take up liquids; this difficulty has led to the introduction of a substance known as absorbent cotton in surgery, which is a cotton chemically treated, so as to enable it to take up liquids; that it should be so largely used by surgeons, being a high-priced article, is evidence that ordinary cotton, however porous, is not absorbent; every one also knows that, while linen towels are well adapted for use, being very absorbent, their cotton imitations, though much cheaper in price, will not give satisfaction in use nor sell in competition; for these reasons, and also because I have practically tested cotton coatings with dextrine solutions, I am certain that no such process as described by Carrington and Blakesley could saturate their
cotton covering which, as will be seen by examination, is
42 braided very closely so as to allow any dextrine in practice to
pass in and form a contact with the metal core to any extent, if
at all. We find with the Mills & Hershey crimper that the heaviest load of saturated dextrine solution, five pounds of dextrine to the gallon of boiling water, which can be carried up after passing through a six and a half inch pan or cup full of dextrine, and braided over at a height of ten inches above the cup with a much quicker feed than Blakesley's crimper shows under compressing rollers which pull it through sufficient to indent the threads into the lead, will only very slightly dampen the outside of the braided covering, so that a practiced hand is required to determine whether it is just freshly made or has been dried; the surplus of dextrine in this case does not come through the coating, but is squashed out at the sides or edges; now, with the stripping rollers described by Carrington and Blakesley, any such squashing process would merely deliver the dextrine solution without resistance into the open air, which would run down into the pan again, and the direct penetrative effect of the dextrine under no circumstances could be as great with the rubber rollers forcing it in from the outside, where the solution is unconfined, as with the steel rollers forcing it out from the inside, where it is confined in the braided covering as in a bag. To test the matter further, I have frequently taken pieces of paper to mark, for instance, a change in dextrine, to test different samples, as we are constantly doing, and, after passing the rollers, the papers were rolled up with the strands, and when pulled off do not adhere, and left no mark behind, except sometimes at the edge where the dextrine exuded, and very seldom even there. I am, therefore, satisfied, and am willing to state positively that the results claimed by Blakesley, to wit, a practical cemented adhesion between the cotton braid, cannot be produced with the appliances and processes described as in use by Blakesley in the testimony given by the defense in this
case. The utmost possible effect would have been a moist-
43 ening and sizing of the contiguous surfaces of the cotton and
silk sufficient to allow them when dry to be cut apart and have
the separate crimper ends inserted into the jaws of the punching press without pushing back the braided ends or having them spring open so that the clips would catch the bare metal instead of the braid.

This is precisely like the moistening and pressing used on seams of cloth by tailors and dressmakers, and when the clips were once applied the function of the sizing terminated, and for all practical purposes the crimper was just as good without the sizing as with it; the process of sizing and moistening being a mere incident to the manufacture, to enable the work to be more rapidly done, and with less waste, and was not a part of the finished crimper, and was not relied upon by Blakesley in his sales of the article, nor in the use to which it was afterwards applied.

Q. 11. Mr. Carrington and other of defendants' witnesses have testified that in the manufacture of the crimpers, such as "Defendants' Exhibit No. 1," a solution of dextrine in cold water was used, what is your knowledge, and what your experience in the use of cold solution for cement or otherwise?

A. 11. I have had considerable experience in the use of dextrine; some dextrine is much better than others. Some time ago I took two ounces of the best and most soluble dextrine, I think, that we have ever used. I took a bottle holding considerably more than a pint, and put into it about a pint of cold water; I then poured in the two ounces of powdered dextrine, corked it up and immediately began shaking it violently; I shook it at intervals for perhaps five or ten minutes, and then left it stand a half hour; at this time there was a very slight solution, and the greater part of the dextrine went down to the bottom in a hard gummy mass. This precipitation was so rapid that about an eighth of an ounce of the dextrine was caught in a powdery lump, showing no action of the water, but sur-
44 rounded by a gummy envelope, and was stuck against the side of
the bottle. I shook it again twelve hours afterwards and the next morning shook it again, nearly one-half of the dextrine still remained undissolved. In forty-eight hours, still shaking occasionally, a considerable portion still remained undissolved. After four days it was not all dissolved. The bottle stood from the first on a bookcase in my library, which is a warm room, and was in constant use by my family. I used the process by shaking with a bottle because that is the most efficacious means for dissolving refractory substances, and is constantly used for dissolving such substances by druggists, perfumers and others. I was fully convinced from this experiment that it was not possible, without much difficulty and long time, to dissolve even two ounces of the best dextrine in one pint of cold water, which would be at the rate of one pound to the gallon. But I knew that we used for the Mills & Hershey crimper four and a half pounds to the gallon. I knew also that this was as little as we could use to make an effective cement, when directly applied to the contiguous surfaces of the metal core and cotton covering, for we paid for our dextrine from two hundred to three hundred dollars per year, which was a considerable item, and as I had charge of the finances of the concern, I would gladly have saved a part of this by reducing the strength of the solution, if it could have been done. To test the matter still further, I asked the foreman to make a tub of it up some day with cold water, and he laughed at me. It is not possible, as a matter of fact, to make a cemented solution for the

purpose required by such a crimper as the Mills & Hershey, by stirring powdered dextrine into a pan of cold water as described by Carrington. A size can be made in that way, possibly, but not a practical cement for cloth and metal, even if directly applied, which is certainly the most effective way of applying a cement, as any one will agree. The Government formula for postage-stamp
45 mucilage calls for two parts of dextrine to five parts of water, dissolved in a water bath; two parts to five equals three and one-fifth pounds of dextrine to the gallon of water, to be dissolved by steam in a steam water bath, and this mucilage is simply to stick postage stamps to envelopes.

Q. 12. Have you closely examined and tested the defendants' crimpers, "Exhibit No. 1;" if so, state what you find in regard to the presence of dextrine and what function it performs or effect it produces therein?

A. 12. I have tested the crimper when first exhibited at Bristol, Conn., at the hearing, and also brought some fragments of that exhibit home with me. I submitted a portion of these fragments to Prof. Leffmann, a well-known analyst of this city, for examination, and he now has them in his possession. I carefully tested for dextrine by the taste, by the microscope, by endeavoring to get some dextrine out of them by sticking bits of paper to them, which paper was moistened with warm water, but the papers failed to adhere to them or to any part of them. There was no taste of dextrine on the core; it showed no stickiness between moistened fingers; under the microscope, it showed no evidence of having scaled from the core, which usually reveals itself, as a piece of wood when glued and afterwards split apart will usually show some evidence of the glue. There was no dextrine on the inner half of the cotton braiding. When I drew a wet thumb over the outer surface of the cotton braiding, it left a kind of dirtiness on the raised portion, where the threads overlapped, which might have been dextrine, as the threads were somewhat flattened in their fibres on top, which was possibly due to a wetting with some sizing material, and being rolled down under feed-rollers while thus sized or starched; but the remaining cotton fibres projected in all directions, with a fuzzy or a woolly look characteristic of undressed yarn which has not been subjected to the action of size. If there was any sizing on the silk, it
46 was on the under side. Mr. Blakesley, while I was at Bristol, at the hearing, gave me a piece of his cotton yarn from his braiding machine, which was put in evidence in this case, and under the microscope there was no apparent difference, except perhaps the slightly varnished extreme outer surface of the cotton braid on the crimper. There was no powdered dextrine visible, or anything resembling powdered dextrine in the cotton covering of the crimper; nor when pounded, in a bright sunlight, did any dust show itself. The varnished surface, if it could be called so, was not powdery, but rather doughy, when drawn over by the thumb; with the naked eye, it merely looked dirty in spots on the raised surface, but under a good glass it looked varnished or surfaced or somewhat sized. I wish to say that this sizing is very slight, in any event,

and will escape the observation of even careful observers, if attention had not been called to it by the testimony of the defense in this case.

A. 13. What is your knowledge and experience as to the permanency or keeping qualities of dextrine which has been in solution?

A. 13. Unless the solution ferments before becoming dried, I think it is practically unalterable. It closely resembles gum arabic, and postage stamps have never been known by me to deteriorate with age. I have some letters with postage stamps applied many years ago, and they still seem to hold. Envelopes are universally cemented together with dextrine, and I think they are generally considered good until used; that is to say, while it may ferment, if kept in a warm place in solution, when it has been applied as a cement, and has become dry, my observation and experience both agree in the fact that it will stand indefinitely.

Q. 14. What function or functions in your opinion do the metallic end clips perform in the crimpers "Defendants' Exhibit No. 1"?

A. 14. They are certainly designed and applied for the
47 purpose of holding the ends of the braid down upon the
core; in some of this exhibit itself the braid has been pushed out in the process of putting the clips on, and it would be absurd to suppose that these clips would be applied except for some purpose; this is the manifest purpose; to suppose that they would be applied for ornament merely, as stated by defendants' witnesses, would be as absurd, in my opinion, as for a maker of ladies' gloves to swage metal tips upon the ends of the fingers; if such tips were put onto ladies' gloves like the copper tips on boys' shoes, it would be exceedingly difficult to convince me that they were applied solely and exclusively for ornament, and have no function whatever, as I should feel certain without any explanation, and in spite of any explanation, that they were intended to protect the fingers of the gloves and prevent them from rubbing or wearing. In this case, however, that they should be used purely for ornament is still more incredible, as these crimpers are intended to be used during sleep, and are to be bent under out of sight, and the crimper is intended to be soft and comfortable to the wearer, as the sole object of covering the metal core with braid in any case is merely to make a soft crimper instead of a hard one, and to suppose that any sane manufacturer would cover his hard core with a soft covering, and then, out of pure love of ornament swage on a couple of sharp-cornered, stiff, hard brass angular hooked clips, to restore to the crimper nearly every element of discomfort, got rid of by braiding them over, to cover and conceal this very hardness, is to me absolutely incredible; the only excuse for doing such a thing is that it was the simplest way which Blakesley knew of to overcome an unavoidable difficulty, and was used and continued as a protection, while the ornamental character might have been insisted upon, but if it were so, only as a blind.

Q. 15. How are these flexible crimpers used in practice?

A. 15. A strand of hair is drawn out to a point and moist-
48 ened; commencing at the end, the crimper is rolled around and around until the crimper reaches the head; the free ends are then bent down and under so as to pinch and enclose the hair under their folded extremities, the crimps of hair then resembling little rounded knots; the hair is then suffered to dry in this form; in the morning the ends of the crimper are bent out straight again and the little coil of hair springs partly open; the crimper is then drawn out at the side and a strand of hair separated into its constituent parts, which then have a frizzled or crimped appearance. In case the crimpers have metal tips on, these tips, when the crimper is drawn out at the side, catch in the hair and are likely to destroy the contour of the bang, and destroy the hair; for instance, a curling iron, provided with a barbed hook on the end, would have a great part of its efficiency destroyed thereby, and the same is true with these crimpers.

Adjourned to Friday, March 13, 1885, 10 a. m.

FRIDAY, *March* 13, 1885—10 a. m.

Met pursuant to adjournment.

Present: Joshua Pusey, Esq., solicitor for complainants, and Geo. D. Seymour, Esq., solicitor for respondents.

Examination-in-chief of ISAAC W. HEYSINGER continued:

Q. 16. Gilbert H. Blakesley, one of defendants' witnesses, has stated, in answer to questions Nos. 48 and 49, that the indenting of the thread in the core of the complainants' crimper assists the cement in holding the covering in place, and says, "I think it is largely due to the indentations in the lead; the thread being so buried as to cause it to adhere full as much as the cement." What is your opinion, from your experience, or otherwise, as to this allegation?

A. 16. Mr. Blakesley's statement is not true; it is just the
49 reverse; the indentation is produced by the hard pressure of the feeding rolls, which squeezes out the dextrine from the very place where we do not want it to be squeezed out, to wit, between the braided covering and the sides of the metal core; it forces the dextrine out to the edges of the core, where it is of no use; this is clearly shown also by the feed-rollers while in use, which have perfectly smooth surfaces, where the flat sides of the braided strips pass through, but are ragged with exuded dextrine along the edges; this squeezing out of the dextrine is unfortunate, but unless the feed-rollers compress the strip very firmly, it will fail to pull along, and the braid will fill up on the crimper, as the braiding spools rotate with a uniform velocity, whether the strip goes through or not; it is an invariable rule, in my observation, that the less the indentation is, the better the cementing of the braided covering to the core is; our men are always cautioned to use as light a spring pressure as will do the work; so far as cementing is concerned, all that is required is to have the braid drawn firmly around the wet

core; this gives the best result; the feed-rollers flatten the surface of the braid or smooth it, and make it more uniform in appearance; this is the only incidental advantage they have beyond the feed which they accomplish, and the indentation of the threads is a disadvantage to a certain extent.

Q. 17. What would be the effect in using the same cement that you now use, and applied in the same manner, if you substituted for the leaden core a strip of copper or brass, such as is used in the crimper, "Defendants' Exhibit No. 1"?

A. 17. It would stick just as well.

Q. 18. What would stick just as well, and to what?

A. 18. The braided covering would stick just as well to the metallic core. There would be this disadvantage, brass costs per pound from four to five times as much and requires annealing, as it is brittle, when rolled into sheets or strips. It also will not
50 give the same number of bendings without breaking, as lead
has a slight elasticity even when very soft, while lead has none whatever, so that a crimp of hair cannot be so securely held by pinching under the ends of a brass core strip as a lead core strip. It is also a harder metal to cut with a pair of scissors in clipping up the crimpers for use for children, as is mentioned in the Mills & Hershey patent, and which is in universal use among those who use the Mills & Hershey crimper, and when cut it leaves a knife edge, which is dangerous in use, while lead leaves a soft edge which will turn without injury if it strike the skin; also the ends of this brass core, if used in the Mills & Hershey process and cut in a cutting machine, would leave very sharp angles at the corners, nearly as sharp, in fact, as the corners of the Blakesley clip, but not as objectionable in use, as they would be partly protected by the braid overlapping the corners, and also because the Blakesley clip is of very thin brass, which is pinched to form a scratching bend at its outer angles. The principal advantage in favor of the unprotected ends would be that the adhesion of the braided covering would assist in protecting the corners.

Q. 19. Have you ever tried the experiment of braiding over a lead strip or core without the use of a cement?

A. 19. I have.

Q. 20. What was the result?

A. 20. There was no adhesion. The exhibit, "Complainants' Exhibit D," referred to in testimony of Henry R. Heyl, is a part of such a strip which I made in his presence. I may add that I have frequently made this experiment involuntarily on a large scale, as sometimes the cups which held one quart each of dextrine solution became empty without the knowledge of the man in charge, and in every such case we have been obliged to throw the whole product away, which has caused us a loss of perhaps more than a hundred dollars since I have had charge of the matter; such crimpers
51 all go to pieces in the cutting machine. We have tried, long
ago, to work in a solution from the outside in such cases, but we could not make it penetrate nor adhere to the core, while it spoiled the crimper surface on the outside, so that we finally con-

cluded to charge all such crimpers to the profit and loss account. We have had several dry-goods boxes of such stuff at various times, which we have sent back to the lead works and sold it for old lead, losing the cotton, labor and charge for manufactured lead.

Q. 21. Produce a sample of a crimper strip not cut up into crimpers, made by you under complainants' letters patent?

A. 21. I now produce such sample.

Offered in evidence and marked "Complainants' Exhibit E."

Q. 22. When was this sample made?

A. 22. About middle of February, 1885. It was put on the spool a day or two ago.

Q. 23. Is it a fair sample of your ordinary manufacture, or have you made any special change, or any change whatever, in materials or cement, or quality of cement, or strength thereof?

A. 23. It is one of our ordinary crimper strips, like all the rest. I took it off as it was going to the cutting machine.

Q. 24. Have you a sample of the crimpers made some time back, from the same kind of a strip? If so, please produce the same, and also state about when the same was made?

A. 24. I have. These crimpers were made about one year ago or more. They are provided with French labels, being made for the French market, but they have the Mills & Hershey patent date, August 5, 1879. They are our regular goods, just like those on the spool, "Exhibit E." These are brown in color, as we make 52 three colors, black, brown and blonde, to match the color of the hair of the wearer, and render the crimper less conspicuous when in use. This box contains nine packages, of one dozen each, of what we call our extra long crimpers, which are the same as our ordinary crimpers, except that they are one-half longer. Ladies like to buy these crimpers for children, as they can cut them apart, and make two crimpers out of each one, which is a saving of money, as they can thus get twice as many crimpers at an increase of one-half in cost. They are also used by ladies for crimping larger bunches of hair. We sell about one-third as many of this size as we do of the ordinary size, and have done so for years.

Box offered in evidence, and marked "Complainants' Exhibit F."

Q. 25. State whether or not you observe any change in the appearance or characteristics of the dextrine, or the cementing in these crimpers, "Exhibit F."

A. 25. I do not, except that we have had trouble sometimes with the dye used on our black yarn. If it is heavily loaded with iron, it seems to be particularly repellant to the mucilage or cement, so that it will be abundant on the coarse strip, and yet not stick so well in use to the braid. Not all black yarn is so, however, as the black yarn which we have procured from the Camden Thread Company is a very much better yarn for this purpose than that which we obtained from the Hadley Yarn Company. We were obliged to abandon the Hadley yarn, after using perhaps a thousand pounds

of their black; but recently, as our Philadelphia agent for these crimpers was also the agent for the Hadley yarn here, and represented that they would correct any deficiency, we tried about three hundred pounds more, and were almost obliged to throw the whole of it away, but by working it in with others, we have used it
53 up mostly. The crimper strip, "Complainants' Exhibit E,"
is made with a Camden Thread Company's yarn, and by comparing it with samples of the Hadley yarn crimpers in black, it will be seen that since the process and material are the same, excepting the dye used on the yarn, that the defect is in the dye. We have never experienced this difficulty with brown, blonde or dark red, which we have also used in large quantities. I attribute it personally to nitrate of iron in the dye.

Q. 26. Say whether or not you have ever known, in your experience as a manufacturer of these crimpers, the dextrine cement to change its condition or cementing properties, or become powdery after the lapse of time, and, if so, what time?

A. 26. That dextrine should decompose in a dry state after having dried out into cementing film from a solution, is incredible to me, for the reason that moisture is necessary to chemical decomposition; that it should become powdered after being applied in the form of a solution, I do not believe from my knowledge of the use of this article in the manufacture of commercial mucilage, postage stamps, envelopes, sizing of textile fabrics, and all the fifty thousand purposes to which it is applied in the arts; as, to believe that, would be to believe that men would use an article which would lose its virtue, when dried, for the very purposes for which it was made and used, and any manufacturer who would use dextrine in such cases, would destroy his own trade, as gum arabic, gum tragacanth, and many other gums are well known, which could be substituted, and which would not granulate when dry; that in all the arts there should not be found one manufacturer to take advantage of this alleged fact, and advertise that he uses pure gum arabic, which will not granulate or powder when dry, while all the others use a substance which cannot be relied upon in use, is incredible to me, if such fact actually existed; besides that, I know from an experience of six years that it does not exist; dextrine makes a good
54 mucilage; and for the purposes of cement a perfect substi-
tute for gum arabic in the arts for such purposes, and is as well liked as ever, while its use has enormously increased, and is still increasing. The rationale is this—the dextrine product of starch by the action of heat and dilute acids is dried in a steam bath *in vacuo* until all the moisture of absorption is evaporated, is then pulverized in a mill, and is ready for the market; when dissolved in boiling water it combines with the water, and when dried at ordinary temperatures still retains a portion of its water; this can only be driven off by a dry heat at 212° Fahrenheit, or above it, and with difficulty even then; at all ordinary temperatures, and in ordinary use, as with all other gums, a portion of the water is retained.

Q. 27. The defendants' witness, Gilbert H. Blakesley, testified, referring to one of the crimpers in "Defendants' Exhibit No. 1," as follows (quoting from questions and answers): "Question 45. Please examine any one of the crimpers, and see if you find the inner covering to be now cemented to the core? A. I find it moves a little. I shouldn't think it was sealed. The article that I made in 1876; I should judge that the cement had become thoroughly dry, and lost its adhesive powers; had reverted to its powdered state. Q. 46. From an examination of the inner covering, do you find that it contains powdered dextrine? A. It has that appearance. Q. 47. From your knowledge of dextrine, should you expect that in this application of it, it would in time lose its adhesive properties? A. I should expect that it would." I now ask, in the first place, whether you carefully and critically examined the said sample of crimpers, at the same time that Mr. Blakesley examined the same, and, if so, state the result of your observations, and such opinions as you have formed regarding the same, and as to the statements of Mr. Blakesley.

Q. 27. I examined them at the time. They formed "De-
55 fendants' Exhibit No. 1." I examined some of these crimpers
at a former hearing of the case, a month previously. I found no powdered dextrine then. I brought some pieces of the crimper, of the core, of the clip, and two pieces with clips on, after the former hearing and before Blakesley testified. I examined them carefully, before the second hearing, with a microscope, and there was no powdered dextrine visible. There was, however, a sort of a glint among the fibres when presented in a strong light, but this was the shell of each individual fibre itself, and I found the same glint on the cotton which we used, and which had never had any dextrine, and I also found it afterward on some of the cotton which was attached to the braiding-machine exhibit filed by Blakesley. The fuzz on the cotton cover of "Defendants' Exhibit No. 1" projected in all directions, and was the ordinary cotton fibre found on cotton yarn of that quality. That none of this powdered dextrine which Blakesley claimed to have seen, or said looked as though it might be there, was visible when a crimper cover was split open longitudinally, so that it could not have escaped, as it was surrounded by the silk-braided envelope, which defendants' witness agreed did not contain the dextrine in its external portions. I observed also that when the witness, Mr. Blakesley, made his observation, he did it by merely picking up a half crimper which had been cut open at the previous hearing, and in which all the parts had been exposed, glanced at it casually, and without the use of any magnifying glass, so that I had no confidence in his observation at the time, I having previously given samples of the same exhibit a much more careful and thorough examination myself.

Q. 28. May not the powdered dextrine have escaped?

A. 28. As I stated in my last answer, if so, it must have escaped through the silken envelope, as I slit it longitudinally, and exposed all the parts for the first time. As the crimpers were produced from a fresh box, and showed no signs of usage, I am satisfied that whatever dextrine was there originally was there in some form then.

56 Q. 29. Have you observed, in looking at the crimper, "Defendants' Exhibit No. 1," that the braiding is set or matted down to the core?

A. 29. No more so, in my opinion, than might be due to the length of time since the braid was placed there, which was nine or ten years; the laying of the threads was no more than that usually found when dresses are to be ripped apart and made over, and which require to have the seams pressed out with moisture and a hot iron before they can be manipulated; I made the observation at the time and before I examined one of the crimpers, that if the bending of the threads was due to the presence of any cementing material, both the individual threads and the individual fibres of which they were composed, would be alike fixed and adherent, but that if it was due to retention in one position for a long time, that while the threads would be bent the fibres would be free, and the latter is precisely what I found to be the case with the identical crimpers which I previously explained that I had examined in 1878, the threads of which the braiding was composed sprang apart much more readily.

Q. 30. You will recollect that some of the defendants' witnesses, who had worked in Mr. Blakesley's factory, testified that they had used for crimping their hair the Blakesleys crimpers, such as "Defendants' Exhibit No. 1," without the end clips; what is your opinion as an expert in that line of manufacture, as to the practicability of such use?

A. 30. I think the Blakesley crimper, as described by him, and as shown in "Defendants' Exhibit No. 1," might have been so used with care; I see nothing to prevent it; I know that bits of tin have been used, wrapped in paper, and bits of sheet-lead, wrapped in paper, and I think they could be used; the ends of the braiding would fray out and the naked metal necessarily project, as was acknowledged by one of the witnesses, I think, but so long as the central body remained intact the whole could be used to wrap the
57 hair round, and the naked ends of the strip would certainly hold the crimp as securely; even if all the braiding were removed, I do not see why the coarse strip itself would not answer to twist the hair around and bend the ends under. If the ends of the braiding began to fray at first, this fraying would increase progressively so long as the crimper was used, and would soon render it worthless as a braided crimper, though no doubt it could be worn until it was soiled, that depending a good deal on the character of the hair upon which it was used, as a soiling medium. The use of such unfinished work in shops by employés is common, and if the employer does not see and take advantage of such unfinished work to his own profit, it would naturally be because such unfinished work was not adapted for use or sale in the general trade as a merchantable article. I know if I should see such a thing in a shop which I was running, and didn't make any use of such knowledge for years to come, but went on making them in the old way at a greatly increased cost, that it would be difficult to convince me nine years afterwards that I knew they were just as good at the time, but didn't like to say so.

Q. 31. What are the similarities of comparative cost and general characteristics of the crimpers such as described in complainants' letters patent and as made by you under the same, and the crimpers, "Complainants' Exhibit B," sold by the defendants in this cause?

(Objected to as not being proper rebuttal.)

A. 31. The crimpers sold by Noyes, Smith & Co., "Complainants' Exhibit B," consist of a strip of brass flattened in cross-section and enclosed between two wider strips of thick yellowish paper, these three elements having been cemented by an adhesive substance into a single mass; surrounding this core was a braided cotton covering cemented to the core from end to end by an adhesive substance; the crimper had no end clips, but had its ends en-
58 tirely unprotected and held in place by the adhesion of the cement; these crimpers were black in color, but we were told by Noyes, Smith & Co. that they were to be made in black, blonde and brown, like the Mills & Hershey crimper, but that the orders were so far ahead of Blakesley's capacity to supply them, that they had not received these other colors. The crimpers shown in "Defendants' Exhibit No. 1" consisted of a strip of brass or copper with a coating of cotton braid and outside of silk braid, and having silvered-brass end clips. The cost of complainants' or Mills & Hershey crimpers would be perhaps greater than that shown in "Complainants' Exhibit B," but the quality would be vastly superior. The lead core is practically homogen-ous, bends readily without breaking, and holds securely, while the paper stiffening used in Blakesley's crimpers, owing partly to its original nature and partly to its stiffening by cement, resists firmly like a stick and then suddenly gives away by the crushing of the fibre or breaking of the paper. It makes a cheap imitation and a dangerous imitation, but, like nearly all imitations, is inferior to the original.

Cross-examination by Mr. SEYMOUR:

X Q. 32. Did Mr. Hershey ever make a crimper having a non-elastic metallic core and a braided covering, in which the covering was not continuously cemented to the core?

A. 32. I do not know that he ever did. If you refer to what is known as the Mills & Hershey crimpers, it was only by stupidity or accident by employees by which some few may have been put up by mistake, and if so, they were not good for much, and it was unintentional.

X Q. 33. What machinery have you devised for use in connection with the manufacture of such a hair-crimper?

A. 33. Certain modifications of the rolls, of the lead dies for having the lead spooled in single strands, new forms of dex-
59 trine cups, a new drying apparatus with fan mechanism, and the apparatus for cutting and counting the crimpers into bundles automatically.

X Q. 34. When was it that you examined, in conjunction with Mr. Hershey, the crimpers that you speak of as having been bought from Messrs. Joel J. Baily & Co., or Young, Smyth, Field & Co., or both?

A. 34. It was between April, 1878, and the winter of 1878; Mr. Hershey, in April, 1878, moved to Poplar street; these examinations took place while he was living on Poplar street; I saw Mr. Mills in reference to his assignment to Hershey, in the winter of 1878 or 1879, and I know it occurred before that time.

X Q. 35. Give as near as you can the time when you examined or investigated these crimpers very carefully, as you say, in conjunction with Mr. C. H. Hershey.

A. 35. I should fix it in the fall of 1878, that I examined them at Mr. Hershey's house and at my own house near about the same time.

X Q. 36. When did you first see a crimper of any description having a non-elastic metallic core and a braided cover?

A. 36. In the spring of 1877; I refer to the Mills & Hershey crimper.

X Q. 37. What time in the spring of 1877?

A. 37. In May.

X Q. 38. Was it on the market then?

A. 38. He was just getting them up to sell, and I helped him to select a head for his label at that time.

X Q. 39. Had any been sold at that time?

A. 39. Not one had been sold; reference to our books shows that not one had been sold prior to May, 1877.

X Q. 40. What is the nature of your connection with the Philadelphia Novelty Manufacturing Company?

A. 40. I am full partner in the company; the company now consists of my brother and myself; before Mr. Hershey's death he was an equal partner.

60 X Q. 41. Do you use anything besides or with dextrine for cementing the coverings of your crimpers to their cores?

A. 41. We have used other substances; we have used fish glue, dextrine, shellac, glycerine, and Venice turpentine, acetic acid, and, perhaps, other substances, but we find dextrine to be the best, and that is what we now use; the others were more experimental; Mr. Hershey, at first, used dextrine, and when the patent was applied for dextrine alone had been used.

X Q. 42. Do you use anything with the dextrine now?

A. 42. No; we use no other cementing substance.

X Q. 43. When did Mr. Hershey, one of the complainants in this case, die?

A. 43. He died September 30, 1884.

X Q. 44. When was the administrator upon his estate appointed?

A. 44. After his death some time, his wife took out letters of administration, or prepared to do so through counsel, but her health broke down and she became very ill, during which the matter remained pending. It was found that she would not be able to do the work, and at the desire of the heirs the Union Trust Company of this city, was subsequently appointed administrator of his estate.

X Q. 45. When was the Union Trust Company appointed administrator of his estate?

A. 45. In November, 1884—about that time.

ISAAC W. HEYSINGER.

Sworn March 12, 1885, and subscribed March 13, 1885, before me,
FRANCIS S. BROWN,
Notary Public.

61 Complainants' counsel offers in evidence a printed copy of the specification and drawings of letters patent of G. H. Blakesley and J. Wright, No. 169,229, dated Oct. 26, 1875, for improvement in garters;

Also a printed copy of the specification and drawings of letters patent of G. H. Blakesley, No. 297,911, dated April 29, 1884, for improvement in hair-crimpers; both of which it is agreed by defendants' counsel, shall have the same force and effect as evidence in this cause as if they were the original letters patent or certified copies thereof.

Counsel for defendants hereby agrees that the affidavits of Gilbert H. Blakesley, Edward L. Carrington and Julies Wright, filed in court by defendants, on the motion for preliminary injunction, be admitted as exhibits and evidence on behalf of complainants at the final hearing of this cause.

GEO. D. SEYMOUR.

Henry R. Heyl, being duly sworn and examined by Mr. Pusey, did depose and say:

Q. 1. What is your name, age, residence, and occupation?

A. 1. Age, 42; residence, No. 4050 Aspen street, this city; occupation, manufacturer.

Q. 2. Have you been accustomed to testify as an expert in patent cases?

A. 2. I have frequently done so.

Q. 3. I believe you are a member of the Franklin institute of this city?

A. 3. Yes.

Q. 4. And a member of the committee or committees having in charge the exhibitions of said institute?

A. 4. Yes, sir; I am a director of the Franklin institute and chairman of its committee on science and the arts, and chairman of its committee on exhibition for the year 1885.

62 Q. 5. You are also, I believe, the patentee of a number of inventions?

A. 5. Yes, sir.

Q. 6. Are you practically familiar with sizings and cements, and the use and application thereof?

A. 6. In the majority of my manufactuers for the past twenty years, I have used cements in connection with paper and cloth and metal.

Q. 7. What do you understand, and what is generally understood in the arts, as a sizing?

A. 7. A sizing is a thin solution of glue or other gum, used in connection with any fabric as a dressing or a means of stiffening the same.

Q. 8. What do you understand, and what is generally understood by cement as compared with a sizing?

A. 8. A cement is a thicker solution of glue or gummy substances, which applied to one surface of any material will cause it to adhere to other surfaces to which it may be applied.

Q. 9. Have you a sample illustrative of the difference between a sizing and a cement? If so, produce it.

A. 9. Yes, sir; I have, and here produce a sample of sized cloth, which has been coated with gum to make it adhesive; this is a piece of material which I am daily manufacturing into adhesive suspension rings; one portion is left ungummed, and the other portion is simply the sized cloth.

Q. 10. Please mark on the sample the part sized and the part gummed.

A. 10. I have done so.

(Sample offered in evidence and marked "Complainants' Exhibit C.")

Q. 11. What gum is used in this sample?

A. 11. It is known as fish glue, that is, the gum applied to the surface of sample.

63 Q. 12. Are you familiar practically with the use of gum dextrine?

A. 12. Yes; I have used large quantities of it.

Q. 13. Have you used both cold and hot solutions of dextrine?

A. 13. I have seldom used cold solutions, for they would never answer any purpose that I had use for gum in; I always used hot or warm solutions.

Q. 14. What kind of a solution or body is a cold solution of dextrine; I mean, what sort of a cement or cementing substance does a cold solution make?

A. 14. It is very difficult to dissolve a sufficient quantity of dextrine in cold water to make even a fair gumming solution or mucilage.

Q. 15. What is the nature of that difficulty?

A. 15. In the first place it takes a great deal of time and labor to stir powdered dextrine into cold water, for the reason that it immediately collects together in lumps which are difficult to dissolve; I have therefore never found it practical to make a gumming solution in that way, for I hardly think it would be possible by such a process to make a solution thick enough to answer the purpose of a mucilage.

Q. 16. What sort of a sizing would the best solution of the best dextrine in cold water make?

A. 16. I do not think that it would make a good sizing at all.

Q. 17. Would it make a sizing or cement if the dextrine were stirred in for immediate use in cold water?

A. 17. That would not be a practical way of making it, and I do not think any one would make use of liquid sizing or gummy material made in that way.

Q. 18. Please examine the crimpers marked "Defendants' Exhibit No. 1," and state if you recognize them in any way.

A. 18. I have never seen these articles before, but would take them to be hair-crimpers, made of a strip of metal, covered
64 with two braided coverings, the one next to the metal being
apparently cotton, and the outside covering being apparently silk, the whole being fastened at the ends with sheet-metal clips, bent around the ends, and secured by an indentation.

Q. 19. Please examine one of these samples carefully and say whether or not you find any adhesive substance or cement thereupon or therein, and if so, to what extent, and what function, if any, such adhesive substance performs in that connection.

A. 19. I have carefully examined several pieces of this exhibit, but to the eye there is no apparent sizing or gum in either of them; I cannot by any means at command, either with magnifying glass or moistened fingers, detect the presence of any gummy substance, either in the threads composing the braided coverings or on the surface of metal core contained therein.

Q. 20. What effect has time upon the permanency of dextrine as to its sizing or cementing quality?

A. 20. I have never known it to lose those qualities by age, that is, when the mucilage was prepared by boiling so as to make a thorough solution, but I would not have much faith in the permanency of a cold solution; it would be likely to granulate and lose its sizing or adhesive qualities in the latter case.

Q. 21. In case of such granulation, would or would not dextrine, when moistened, adhere to the moistened surface, whether made from cold solution or from warm solution?

A. 21. Oh, yes; to a certain extent, for it would be literally making a solution of it the second time.

Q. 22. Suppose that "Defendants' Exhibit No. 1," had originally contained dextrine in any appreciable or useful quantity, such dextrine having been applied some eight or ten years ago, would or would not the same be visible and active in the crimpers, "Defendants' Exhibit No. 1," at the present time?

A. 22. I think so, without doubt.

65 Q. 23. Are you familiar with the complainants' patented crimper, and the process of its manufacture?

A. 23. Yes; I have seen the articles manufactured, and am familiar with the process.

Q. 24. What would be the effect of simply braiding over the metallic or the lead core, without the use of a cement applied to the core?

A. 24. The lead core would readily slip out of the braided covering, when the whole strip was cut into short pieces, and the braided covering would also unbraid itself and fray out at the ends, so that the article would be unfit for the purpose for which it is intended.

Q. 25. Is not the braiding somewhat imbedded in the lead core when made in the manner referred to?

A. 25. It is so in practice, for in the braiding machines there are press-rollers which serve both to draw the finished and braid-covered core through the braiding machine, and to flatten or give a finish to the article; if these rollers press the article sufficiently hard, as in practice they always do, the soft lead will take the impression of the threads of the braid.

Q. 26. Does this braiding remain imbedded in the lead core, or otherwise, when the strip is removed from the machine?

A. 26. Unless the article is handled, the braiding lies in the same position that it was on leaving the press-rollers, and usually adheres closely to the core, and may be said to be closely imbedded with the lead.

Q. 27. What is the effect of the application of the cement?

A. 27. A proper cement, that will adhere to the metal, would, of course, cement the braided covering tight to the lead core, and prevent it from slipping out, and also prevent the ends of the braid from ravelling or fraying out.

Q. 28. Have you ever tried, or seen tried, experiment of braiding over the lead core without the use of a cement?

66 A. 28. Yes. I have here a sample of such an article, made for me on the 6th of this month.

Sample offered in evidence, and marked "Complainants' Exhibit D."

Q. 29. The method of manufacturing the crimpers, "Defendants' Exhibit No. 1," as described by defendants' witnesses, is as follows: "A core, consisting of a thin strip of brass, such as you see in said exhibit, is coated with or braided with a covering of cotton thread, also such as shown in said exhibit. The continuous strip thus braided over is passed through a solution of dextrine, contained in a pan, thence immediately to a second braider, while the cotton was wet with the solution, and braided over with a second covering of silk, as in said exhibit, a pair of rubber stripping rollers, through which the wet strip passes, being located between the said pan and the second braider, and having a pair of metallic feed-rollers above the second braider to draw the strip through." What, in your opinion, would be the effect, so far as cementing the cotton braiding to the metallic core is concerned, and also, at the same time, so provide that the sizing shall not strike through the outer covering?

A. 29. In the first place, I would consider it extremely unlikely that any solution of gum or dextrine, thick enough to make a good cement that would secure the thread to the metal core, could be so applied for the purpose; I do not think that solution would penetrate through the cotton covering sufficiently to make it adhere to the core, and if a sufficient amount of gum had entered the cotton braiding to thoroughly saturate it, and enough of it had been left in the cotton braiding by the rubber stripping rollers described, I think it would hardly be possible to pass the finished braided strip, having the silk covering, through the upper pulling or press rollers, without causing the gum to come through to the outside, and 67 discolor the silk covering; for the reason that the necessary pressure of the upper rollers, which would be required to pull this cotton-braided and silk-braided strip of metal from the original reel around rollers, and through the gumming pan, and through the stripping rollers, and also through the braiding machine, would be so great as to press out through the silk covering any moisture or gumming solution in sufficient quantities to amount to a cement, and thus discolor the silk covering.

Q. 30. Say whether cotton is a good absorbent or repellent of a solution of gum dextrine.

A. 30. It does not readily absorb gum of any kind, especially when twisted in threads.

Q. 31. What function or functions, in your opinion, do the metallic end clips perform in the crimper, "Defendants' Exhibit No. 1"?

A. 31. In the exhibit before me, these end clips serve the purpose of securing the braided covering to the metal core, serving the double purpose of keeping the core within the covering, and of keeping the covering from fraying out at the ends. If these metal caps were not on, the metal core would readily slide out of the braided covering, and the ends of the covering would also ravel out, and expose the ends of the metal.

Q. 32. What advantage, if any, obtains by use of these clips in a hair-crimper, so far as ornament is concerned?

A. 32. I can see no advantage so far as ornamentation is concerned. They are certainly useful and necessary to the completion or practical value of the crimper, "Defendants' Exhibit No. 1," which would be unsalable without them.

Q. 33. What disadvantage, if any, pertains to the use of these metallic end clips?

A. 33. In the first place they add to the cost of manufacture of the article and are very likely to catch in the hair or scratch the skin of the wearer.

68 FRIDAY, *March 13th*, 1885—10 a. m.

Examination of HENRY R. HEYL continued.

Cross-examination by GEO. D. SEYMOUR, Esq.:

X Q. 34. In what quantities have you prepared solutions of dextrine in your business?

A. 34. When I was using dextrine as a cement, I usually prepared from one to two gallons at a time, buying the dextrine by the barrel.

X Q. 35. Can you swear positively that it is impossible to make a gummy or sticky solution of dextrine with cold water?

A. 35. No, I do not think it is impossible, but it takes a great deal of time to dissolve enough dextrine in cold water to make a gum of sufficient thickness to act as a good cement, and even then it would not be as reliable as a cement that had been made with hot water or had been boiled.

X Q. 36. Please answer the question.

A. 36. No.

X Q. 37. How long would it take, in your opinion, a cement made from dextrine and cold water, to granulate or turn into powder?

A. 37. I am not prepared to answer that question, for I have never used, to any extent, a cold-water solution of dextrine.

X Q. 38. Judging from what you have used, what should you say?

A. 38. I do not remember any instance at all where I have found a coating of a solution of dextrine to have returned to powder or granulated, as I understand your question to mean.

X Q. 39. Are you familiar with the cementing of cloth or thread to metal?

A. 39. Yes; I have done a great deal of such cementing of cloth to metal in my business in former years.

69 X Q. 40. Will not repeated flexions of an article produced by cementing cloth or thread to metal, disturb or break the adhesion between them?

A. 40. Yes; but much more so with some cements than others.

X Q. 41. Suppose dextrine is the cement used?

A. 41. It would be liable to let go of the metal by repeated bending, and would adhere to some metals much more strongly than to others.

X Q. 42. Have you tried personally, or seen tried, the defendants' process as described in question No. 29 of your testimony?

A. 42. No, sir; I have not.

X Q. 43. Does not in your opinion, the imbedding of the thread, as shown in the complainants' crimper greatly assist the adhesion between the core and the cover?

A. 43. No; I do not think that it makes any difference in that respect.

X Q. 44. Does not the virtual corrugation of the core produced by imbedding the threads of the covering into it, increase the area or surface exposed for adhesion?

A. 44. It does very slightly, but in my judgment not to any perceptible degree, so as to make the braided covering adhere more safely than if the core were flat.

X Q. 45. Does not the roughening of the core assist in retaining the covering in place upon it, after repeated flexions of the crimper have disturbed or broken the adhesion between the covering and the core?

A. 45. I do not think it does.

X Q. 46. Is there not more friction offered by a roughened surface than by a plain surface?

A. 46. Frequently the contrary is the fact; but in the hair-crimper in question I do not think the roughening has anything to do with the tenacity of the cement in connection with the braided covering.

70 X Q. 47. Are you prepared to swear positively that the crimpers, "Defendants' Exhibit No. 1," do not or have not contained dextrine?

A. 47. No, sir; I have merely testified that I can find no trace of it by examining the exhibits here before me under a strong magnifying glass, or by any other means at my command.

X Q. 48. You have stated that you have not tried or have not seen tried the defendants' process, can you then swear positively that the cotton of the cotton-braided strip would not be saturated by the dextrine cement through which it passed in the prosecution of such process?

A. 48. I cannot swear positively from information derived from personal experiment; my answer was based only on my information on such subjects derived from years of personal experience.

X Q. 49. What inventions of yours have you patented?

A. 49. There are a long series of inventions and patents under the title of paper boxes, paper-box-making machines, book-stitching and book-sewing machines, staple-making and staple-driving machines, perhaps covering twenty-five or thirty different patents.

X Q. 50. Are any of your inventions, patented or otherwise, manufactured or used by the Philadelphia Novelty Manufacturing Company, the complainants in this suit?

A. 50. There is one of my inventions which I am informed The Philadelphia Novelty Manufacturing Company now own, having purchased the same from George W. Heyl, to whom I sold the said patent in 1878. I refer to a device for driving and clinching metallic staples.

X Q. 51. Have you now any business connection with such company or with any member of said company?

A. 51. No, sir; none whatever.

Re-examination by Mr. Pusey:

Q. 52. Have you any interest whatever in the result of this suit?

71 A. 52. No, sir.

Q. 53. Do you understand how the crimpers, such as made by complainants, are used in practice?

A. 53. Yes, sir; I think I am familiar with the use of hair-crimpers.

Q. 54. What portion or portions of these hair-crimpers are bent or fixed when used?

A. 54. The bends are usually at one or two points on either side of the centre and toward the end of the crimper, as may be determined by the quantity of hair rolled around it.

Q. 55. Granted that the cement may lose its hold at the points of bending, what effect is there, if any, upon the cementing or holding in the other parts of the crimper?

A. 55. I think it would have no effect except right at the immediate bend.

Q. 56. You are also the manufacturer and patentee of a certain adhesive suspension hook and suspension ring?

A. 56. Yes, sir.

Q. 57. You make use of a cement in the manufacture of those articles, do you not?

A. 57. Yes, sir.

HENRY R. HEYL.

Sworn, March 12th, 1885, and subscribed, March 13th, 1885, before me.

FRANCIS S. BROWN,
Notary Public.

Henry Leffmann, being duly affirmed, and examined by Mr. Pusey, did depose and say:

Q. 1. What is your name, age, residence and occupation?

A. 1. Name, Henry Leffmann; age, 38; residence, No. 1330 Franklin street, this city; occupation, chemist.

Q. 2. What has been your experience as a chemist?

72 A. 2. I have been in practice, as an analytical chemist, since my graduation, in 1869, having, subsequent to that period, until about 1872, been in charge of the laboratory of Dr. Charles M. Cresson, professional chemist, of this city. Since 1872, I have been nearly continuously in chemical practice, on my own account. I am now professor of chemistry and metallurgy in the Pennsylvania College of Dental Surgery, and demonstrator of chemistry of Jefferson Medical College. I have held the position of chemist to the coroner of Philadelphia for five years; and am now port physician of this city, and am also one of the honorary experts of the State board of agriculture.

Q. 3. Have you been accustomed to be called as an expert in patent cases?

A. 3. Yes, sir. I have served as expert in various patent, and also medico-legal cases, in several years past.

Q. 4. Have you paid special attention to any particular branch of chemistry, and, if so, what?

A. 4. More particular to medical chemistry, which includes organic chemistry.

Q. 5. Have you had any occasion to direct your attention chemically, or otherwise, to the subject of sizing or cements, more especially gum dextine? And, if so, the nature thereof.

A. 5. I have not made any special study of this subject, except in connection with the general use of such articles. I am familiar with the general properties of dextrine. I have made some study, microscopically and otherwise, of common fibres.

Q. 6. How is it as to the degree or tendency of cotton thread and cotton of absorption of a solution of dextrine in water?

A. 6. Cotton, in its ordinary condition, is not very absorbent of any watery solution; some substance on the fibre, probably of the nature of grease or rosin, repels the liquid. Special processes are now used to prepare what is known as absorbent cotton, for surgical uses.

73 Q. 7. State whether or not the repellent substance alluded to is natural to cotton fibre, or otherwise.

A. 7. I think it is natural to cotton fibre—in the sense, at least, that it is found in the loose fibre as gathered from the plant.

Q. 8. If sufficient time is given before the solution of dextrine dries or hardens, when applied to cotton, will or will not this repulsion be overcome, and an absorption take place?

A. 8. I think it will.

Q. 9. How is it as to the solubility of gum dextrine in cold water as compared with its solubility in warm or hot water?

A. 9. The rapidity and amount of solution is increased in warm or boiling water.

Q. 10. Please examine carefully the crimpers, "Defendants' Exhibit No. 1," and state whether or not you discover that the inner braiding is cemented or has been cemented to the metallic core to any and to what extent, and also state whether or not you discover, by any of your senses, the presence of dextrine or other adhesive gum on or in any part of said crimper, and if you find it mention the fact or facts.

A. 10. I am not able to discover that the inner braiding has been cemented to the metal strip. I cannot see on the inner braiding anything that I can identify as dextrine; some points that have a powdery look through the glass are, I think, mostly caused by the sheen of the cotton fibre. I do not see any noticeable amount of dust on either the brass plate or the inner surface of the braiding. Some pieces of broken fibre, partly dyed, are there; the strands of the inner braiding are loose and easily movable, fray out easily. I cannot recognize, by tests, any dextrine, which I have been able to do in other fibres which I have known to be charged with dextrine solution. I regard the movability of the inner fibre over the
74 surface of the metal and the easily frayable condition of the inner parts of the fibre, as evidences of the absence of any cementing material to any perceptible extent. I am not able to find any evidence of dextrine or cementing material on the outside of the inner braiding nor on the silk covering.

Q. 11. Suppose that the metallic strip covered with the cotton braid, such as "Defendants' Exhibit No. 1," had been run through a solution of dextrine and the silk braiding put on while it was wet, or otherwise, and this were done say as long as eight or ten years ago, and suppose that subsequently after the dextrine was entirely dry, the strip or crimper were handled and bent to any extent, would or would not you be able to detect the dextrine in said strip or crimper, provided there had been originally a sufficient quantity or strength of the dextrine to operate as a cement or produce practical adhesion between the inner braiding and the metallic core or the fibres of the braiding?

(Objected to as leading.)

A. 11. I think I would be able to detect the dextrine under those circumstances.

Q. 12. What is your opinion as to the production of a practically adhesive cement, such as would practically cement the inner braiding of the crimper, "Defendants' Exhibit No. 1," to the metallic core in any manner, if such cement or solution were formed by stirring powdered dextrine into a pan of cold water, for immediate use, and the same being tested by the feel of the fingers?

A. 12. I think that such a solution of dextrine of good adhesive quality, for such fibres, could not be prepared by a few minutes' stirring, from the tendency of the dextrine to become lumpy, and interfere with the solution.

Q. 13. Suppose the solution of dextrine were applied on the outside of the cotton braiding in its passage through the braiding machine, said cotton-covered core being run through a pan con-
75 taining the solution, and reliance be placed upon the dextrine
to be absorbed or soaked through to the metallic core, and thereby cement the braid upon the core, what, in your opinion, would be the practical result of such a condition or operation?

A. 13. I think it would fail to attach the inner core to the metallic strip, because the solution would not penetrate the fibre, but rather work between the openings of it, and might spread slightly underneath the fibre on the strip; but referring the question to the braiding of the "Defendants' Exhibit No. 1," which is a rather compact braiding, the fastening would be irregular and incomplete.

Q. 14. State whether or not the solution under the conditions referred to would or could so penetrate the fibre of the cotton braiding as to produce a practical sufficient adhesion, so as to practically secure by cementing the cotton braid to the metallic core, so that the crimper would be reliable in use or practically useful as a merchantable article without the use of the metallic end clips, such as appear on defendants' said exhibit.

A. 14. I think that the facility of bending the crimper into various shapes or of cutting it to any length without detaching the cotton covering, could not be attained by the process mentioned in the question above.

Q. 15. The method of manufacturing the crimpers, "Defendants' Exhibit No. 1," as described by defendants' witness, is as follows: "A core consisting of a thin strip of brass, such as you see in said exhibit, is coated with a braided covering of cotton thread, also such as shown in said exhibit; the continuous strip thus braided over is passed through a solution of dextrine contained in a pan; thence immediately to a second braider, whilst the cotton was wet with the solution, and braided over with a second covering of silk, as in said exhibit, a pair of rubber stripping rollers through which the wet strip passes, being located between the said pan and the
second braider, and having a pair of metallic feed-rollers
76 above the second braider to draw the strip through." What,
in your opinion, would be the effect, so far as cementing the cotton braiding to the metallic core is concerned, and also at the same time to provide that the sizing shall not strike through the outer covering?

A. 16. I do not see how by that apparatus the dextrine solution could be forced in so as to firmly unite the cotton covering to the metallic strip, and to leave the silk covering unsaturated when it was put on.

Cross-examination by Mr. SEYMOUR:

X Q. 17. Are you positive that cotton in its natural state contains a resinous or other water-repelling substance?

A. 17. I will not be sure whether as found in the pod when just opened, or acquired in the process of preparation, by ginning, for instance, but in the form in which it comes in ordinary use as a commercial article, I think it always shows a certain amount of water-repelling power; part of this quality may be due to the form of the fibre, which is a flattened, twisted cylinder, but since the water-repelling property is greatly diminished by treatment which would have the power to remove resin or grease, it is generally inferred that such or similar material is present.

X Q. 18. Would not the washings and carding operations (the washing being done by chemicals), which are subsequent to ginning, and which precede the operation of spinning into yarn, remove the resinous material that you refer to?

A. 18. They would to a certain extent.

X Q. 19. Have you ever tested the water-repelling property of yarn like the inner coating in "Defendants' Exhibit No. 1"?

A. 19. I have not; that is not specially; I speak in answer to the questions on this subject from my general experience on fibre, without special reference to this particular form of fibre.

77 X Q. 20. You have not then tested the water-repelling qualities of the yarn forming the inner coating of "Defendants' Exhibit No. 1"?

A. 20. I have not.

X Q. 21. What acquaintance have you had with dextrine?

A. 21. A knowledge of it as a chemical substance, soluble in water, adhesive, of a peculiar sweet taste, permanent when dry, forming a somewhat glazed film when dry on the surface, and as the ordinary adhesive material of postage stamps.

X Q. 22. Have you had any practical use for it, and if so, what?

A. 22. No; I have not; I have no practical experience with it in manufacturing operations.

X Q. 23. Do you regard cotton as a water-proof substance?

A. 23. No.

X Q. 24. Is there any reason that you know of why cotton should not absorb a cementing solution of dextrine made with water as readily as water, other, of course, than for the reason that the solution is thicker than water?

A. 24. I do not think that the word "thicker" fully expresses the idea in my own mind, but in the main I think that it is this greater thickness or viscosity which causes the delay in the absorption.

X Q. 25. Have you tested the absorption by yarn of the quality of the inner covering of "Defendants' Exhibit No. 1" of a cementing solution of dextrine made with water?

A. 25. I have not.

X Q. 26. What experience have you had in preparation of solutions of dextrine?

A. 26. Simply the fact that as a chemical substance I have treated it with water, with view of dissolving it for the purpose of making a mucilage, or for observing its quality when studying the character of such substances. I have made no elaborate study of its properties.

78 X Q. 27. Have you studied or are you familiar with its adhesive properties when applied for the adhesion of yarn of the quality of the inner coverings of "Defendants' Exhibit No. 1" to metal?

A. 27. I have made no experiments with solutions of dextrine on yarn in contact with metal, as suggested in this question.

X Q. 28. It is stated, upon eminent authority, that when dextrine in solution with water is deprived of the same, that it reverts to its powdered state; what have you to say in this connection?

A. 28. I am not prepared to deny that statement, but I think that such a result would depend somewhat upon the treatment of the solution and the form in which it is applied or spread before drying.

X Q. 29. What, if any, is the chemical effect of mixing dextrine with water?

A. 29. The effect of solution, which is not, strictly speaking, a chemical effect.

X Q. 30. Do I understand you that dextrine may be recovered, chemically unaltered, from its solution in water?

A. 30. I think it can.

X Q 31. Are you prepared to swear positively that the crimper. "Defendants' Exhibit No. 1," which you have examined, does not contain dextrine and that the inner covering has not been at some time, cemented to the strip?

A. 31. I am not sure that the inner coating has never been cemented to the strip, nor that there is no dextrine present, but the present condition of the specimens of "Defendants' Exhibit No. 1" is that that the coating is not attached to the strip; that I can detect no dextrine by taste or inspection; that the inner coating is loose and easily movable and the fibres not apparently compacted or bound by any cementing material. A categorical answer to this question, free from the qualifications here given, would be no.

79 X Q. 32. Would not the application of pressure to a braided strip when wet, have the effect of mashing or compacting the fibres, and closing up the mesh of the braid?

A. 32. I doubt whether cotton fibre would be much compressed or compacted by pressure alone, but it would be to a certain extent, that is, the individual fibres would be not much changed, but they would be brought closer together.

X Q. 33. What effect would the application of pressure, as described, have upon the threads or strands—that is, as to closing the mesh of the braid?

A. 33. I think it would condense somewhat the threads, and bring the strands together, if the pressure were practically from all sides; whether in a mechanical contrivance, such as referred to in this examination, there would be any condensation, except in the direct line of pressure, I am not prepared to state.

X Q. 34. What do you mean by a direct line of pressure? Do you refer to the pressure of the stripping and feed rollers, shown in the sketch, "Defendants' Exhibit No. 3"?

A. 34. I do.

X Q. 35. Would the same result of closing the mesh occur, if the braided covering of cotton were dry?

A. 35. I think not; or, at least, it would not be permanent.

X Q. 36. With the understanding then that the cotton covering of the strip, "Defendants' Exhibit No. 1," has not been permanently compressed before it is submerged in the cementing solution through which it passes, and that an opportunity is given for the excess of cement taken up by the cotton to be absorbed by it, before the strip reaches the stripping rollers, all in accordance with the defendants' process, as stated in question No. 15 of your testimony, are you not of the opinion that the effect of such process would be to cement such covering to the strip?

80 A. 36. I am obliged to answer to this, that, not having made experiments, I cannot say what degree of adhesion could be obtained. I feel sure, however, it would depend upon the degree of pressure, upon the length of time elapsing between the dipping of the travelling strip and the passing through the rollers, and upon the character of the metal somewhat of which the strip was made. I doubt that, taking the specimen of brass strip, such as shown in "Defendants' Exhibit No. 1," very good adhesion could be obtained.

X Q. 37. You have not then tried, or seen tried, the defendants' process, as described in question No. 15, and as shown in the sketch, "Defendants' Exhibit No. 3"?

A. 37. I have not.

X Q. 38. Can you swear positively that it is impossible to prepare a cementing solution of dextrine, suitable for the purpose of cementing fibre to metal, with cold water?

A. 38. No. I have not desired to state so, but only that, by a brief stirring of powdered dextrine in cold water, no very good cementing solution could be obtained.

HENRY LEFFMANN, M. D.

Affirmed and subscribed before me, this 13th day of March, A. D. 1885.

FRANCIS S. BROWN,
Notary Public.

WILLIAM R. RIGHTER, being duly sworn and examined by Mr. PUSEY, did depose and say:

Q. 1. What is your name, age, residence and occupation?

A. 1. Name, William R. Righter; age, 23; residence, No. 2428 Brown street, this city; occupation, I work for the Philadelphia Novelty Manufacturing Company in the manufacture of crimpers.

81 Q. 2. What branch of the manufacture do you attend to?

A. 2. I run the machines that make their crimpers.

Q. 3. How long have you been engaged in that?

A. 3. Nearly five years.

Q. 4. Are you familiar with the use of dextrine in that manufacture?

A. 4. Yes, sir.

Q. 5. Do you use a cold or hot solution of dextrine?

A. 5. I use hot.

Q. 6. What proportion of dextrine with the hot water have you found necessary to use in order to practically cement the braiding to the metallic core of the crimpers?

A. 6. About five pounds of dextrine to the gallon.

Q. 7. Why have you not used cold solutions of dextrine?

A. 7. It won't mix in cold water; it won't dissolve; it is all lumpy like.

Q. 8. Suppose, instead of passing the strip of metal through the dextrine and then applying the braid, the braid were first applied and the braided strip run through a solution of dextrine, what would be the effect, in your opinion, of this operation as to the solution penetrating through from the outside to the core, the strip running at the usual speed of the braiding machine?

A. 8. I don't think it would work; I never experimented with it.

Q. 9. What is the action of cold water poured into a saturated solution of dextrine and hot water, as illustrating some of the properties of dextrine?

A. 9. If you pour cold water into the dextrine it will change its color and will take the stickiness out of it. By the dextrine I mean the solution as we make it with boiling water.

Q. 10. Do you know this by practical trial?

A. 10. Yes.

82 Cross-examination by Mr. SEYMOUR:

X Q. 11. Are you still in the employ of the Philadelphia Novelty Manufacturing Company?

A. 11. Yes, sir.

X Q. 12. Have you personally tried mixing dextrine with cold water, and if so, to what extent or how many times have you tried it?

A. 12. I can't tell how many times I have tried it, but I can't mix it with cold water at all; I can't make it mix; I have tried it, and I have tried it when I wanted to do it; when we could not get hot water, and we had to wait until we got the hot water.

X Q. 13. In what quantities or proportions did you try to mix dextrine in cold water, as you have referred to?

A. 13. Just the same as we used in mixing it with hot water, that is, five pounds of dextrine to the gallon of hot water.

X Q. 14. What seemed to be the trouble?

A. 14. It would not dissolve in the cold water, it all goes lumpy.

X Q. 15. Did you make any effort to break up those lumps, and to rub the dextrine and water together?

A. 15. Yes, sir.

X Q. 16. How did you put the water and dextrine together?

A. 16. I put the water in a bucket, and then put the dextrine in it.

X Q. 17. Did you put the whole quantity of water in the bucket?

A. 17. Yes, sir.

X Q. 18. Then how did you put the dextrine in?

A. 18. I just poured it into the water.

Re-examination by Mr. PUSEY:

Q. 19. What is the nature of these lumps of dextrine you refer to; are they soft or tough?

83 A. 19. Stiff; there are two kinds of lumps; some of them go to the bottom in a mass, a few of them will float in little lumps on top, and are easily broken; that which goes to the bottom you can stick a stick in it; you can jab in it, it is tough.

WM. R. RIGHTER.

Sworn and subscribed before me this 13th day of March, A. D. 1885.

FRANCIS S. BROWN,
Notary Public.

84 EXHIBITS.

Affidavits of Gilbert H. Blakesley, Julius Wright, and Edward L. Carrington.

United States Circuit Court, Southern District of New York.

CHRISTIAN H. HERSHEY and JOHN H. HEYSINGER *vs.* HOWARD M. GILES *et al.*, Trading as Noyes, Smith & Company.	In Equity. April Sessions, 1884.

STATE OF CONNECTICUT,
County of New Haven, } *ss:*

Gilbert H. Blakesley, being duly sworn, deposes and says:

I am forty-four years of age and reside in Bristol, Conn. For about twenty years I have been engaged as an inventor and manufacturer of clocks and novelties. In the late fall of 1874, I began, in company with Julius Wright, the manufacture of a garter of which Mr. Wright and myself were joint inventors. The garter consisted of a tortuous spiral spring, provided with a clasp at each end, having a braided covering of silk thread, which was secured to the ends of the spring by mucilage which was used 85 to prevent the braided covering from fraying out before the clasps were secured in place. The mucilage used was dextrine; I never used anything else. In July of this year, 1875, I bought out Mr. Wright's interest in the garter business; Mr. Wright imme-

diately began the manufacture of a novel hair-crimper, which were suggested by the garters; the crimper consisted of a soft or non-elastic core having a braided covering; it was made by braiding long strips of sheet metal and then cutting them up into the required lengths for the crimpers; previously to cutting the strips up they were gummed with a brush at points two or three inches apart; this gumming was done with a brush by hand, and dextrine was used; the object in doing it was tó secure the covering to the core strips and to prevent it (the covering) from fraying out after the strips were cut up into crimpers; the crimpers were provided at each end with a small metallic clip; these had no function whatever but were used solely for ornament; they were made of sheet metal and plated with silver, and added greatly to the attractiveness of the completed crimper; the crimper was covered with silk, and with the plated tips made an attractive article; they were put up in neat slide boxes and retailed at twenty-five cents a box. I am familiar with the article produced by Mr. Wright, and his method of producing it, as the work was done in the rooms where I was carrying on the garter business; in fact the machine in which the covering was applied to the crimpers was one of my garter braiders, fitted up for braiding the crimpers. This machine was set up on the same bench with my braiding machines and was tended by a Carrington, a boy hired by me to run my garter-braiding machines. Mr. Wright made and sold a considerable quantity of crimpers of this description; the crimper marked "Defendants' Exhibit Crimper H. J. W." is one of the crimpers made by Mr. Wright some time between the latter part of 1875 and the early winter months of 1876. Early in the year 1876 I acquired Mr.
86 Wright's interest in the crimper business; Mr. Wright remained, however, and worked for me off and on up to the following May; some time early in June he went to St. Paul, Minn., but did not remain long, returning home in about ten days; when he returned, he went to work for other parties in the shop where I was carrying on my business, and frequently came into my rooms, where he watched the development of the garter and crimper business. In the spring of 1876 I began applying a double covering to the crimpers; this consisted of an outer covering of silk and an inner covering of cotton, and involved two braiding operations; the object in using a double covering was to increase the bulk of the crimpers without increasing the size of the core; it was desirable to use a light core because of its cheapness, and also on account of its greater capacity for bending without breaking than a heavier core; with this double covering I found difficulty in gumming the long core strips; the increased bulk of the braided covering required more mucilage, and hence more time to apply it; it also required more time for drying; this led me to look for some other way of applying the gum; some time in the early summer of this year I devised the plan of running the core strip through a bath of dextrine after it had received the covering of cotton which was thoroughly saturated with the mucilage, and thus prevented from fraying out when the core strip was cut up. After passing through

the bath of dextrine the core strip was passed on to a second braider, where it received the silk covering, the same adhering to the gummed cotton covering; after receiving the silk covering, the core strip was reeled and dr*y*ed, and afterwards cut up into lengths by a power machine. I found, after putting this plan of putting the core strip through a bath of dextrine on its way from the cotton to the silk braider into operation, that the cotton covering took up too much mucilage, and especially late in the day when
the same had thickened; to avoid this, I fixed up two rollers
87 through which the core strip was passed before entering the
silk braider; these rollers stripped off the excess or surplus gum. The bath of dextrine was contained in a small pan having a roller journalled in it so as to be entirely or partially immersed in the mucilage; the pan was placed on a small sheet located beneath the braiding machines, and the core strip was passed under the roller journalled in the pan as referred to; after the core strip received the silk covering, it was allowed to dry and then cut up as I have before explained; as the covering was cemented throughout the length of the core strip, the same could be cut into crimpers of any desired length without any fraying of the covering; the crimpers were trimmed with silver-plated clips and packed in attractive slide boxes; in trimming the crimpers and in packing them I followed Mr. Wright, thinking with him that in introducing a new article it was desirable to make it as attractive as possible. I wish to call attention to the further fact that the crimpers were covered with silk, and called for a better package than the goods now on the market, which retail at five cents a dozen where the silk-covered article sold for twenty-five cents a dozen. During the year of 1876 I made and sold large quantities of crimpers, the coverings of which were cemented by dextrine throughout the lengths of their cores; I continued the manufacture of this article through the years 1877, 1878, and 1879; I had quite a stock on hand when I stopped my braiding machines in 1879, and these were finished and sold in small lots during the year 1880; I did not, however, supply the crimpers to the jobbing trade generally after the fall of 1879; I stopped manufacturing the crimpers simply because my pendulum business had in 1879 acquired such proportions that I found it did not pay me to look after the crimper business; I made the most crimpers during the last half of the year 1876, and the first half of
the year 1877. Portor Bros. & Co., of New York city, han-
88 dled the crimpers as long as they were made. In the spring
of 1881 I closed my business in Bristol. In the month of August, 1883, I again turned my attention to hair-crimpers, with a view of resuming that business and producing a cheaper article. I had the same braiders which had been used from 1875 to 1879 in making the crimpers, and these machines were set up and put in running order; I also had on hand a quantity of clips and braiders, core strips and stock, which had been left over and stored when I stopped manufacturing the crimpers. My object at this time was, as I have once stated, to produce a cheap article; to do this I found that the core of the crimpers could be relied upon only for retain-

ing the crimpers in any shape and not for the bulk required of the crimpers; I also found that it would not do to use a light core and make up the deficiency in bulk by braided covering. Finally after several weeks of experiment and study I hit upon the idea of getting the bulk required by the use of a paper envelope which should enclose the core. This plan had the advantage besides that of enabling me to get the bulk required at a very light cost, of offering an absorbent material for cementing the braided covering to. In this connection it may be well to mention a fact well known in the arts. I refer to the difficulty, I had almost said impossibility, of securing an absorbent material to a non-absorbent material by the use of an adhesi*on;* this difficulty is increased of course when the two bodies or materials are to be repeatedly flexed or bent after being cemented together. A critical study of a hair-crimper will show that as a matter of fact the covering, when cemented throughout its length to the core of the crimper is prevented from fraying out rather from the adhesion of the strands together than their adhesion to the metallic core. In making my new crimper, having a paper envelope enclosing the metallic core, I employed long strips of tough paper which were of the width of the crimpers to be produced. Two strips were employed, and these were applied to opposite sides of the core. The process of making
89 my new improved crimper consists essentially in passing
the paper strips through a bath of dextrine and feeding them into the braider on opposite sides of the core which is carried up between them. As the thread is applied or woven on, it draws the paper strips together and causes them to adhere at the edges and form a pocket or case for the core; the braided covering adheres to the outer faces of the paper strips; in this connection I wish to state that the first of my new crimpers put on the market were made with stock left over from 1879; this was broad brass stock, and did not allow the edges of the parer to adhere. "Complainants' Exhibit B, C. H. Hershey," is one of the crimpers made with broad stock; I made comparatively few crimpers with this broad stock, and soon procured some light wire which I used successfully and which I am now using. "Defendants' Exhibit B, G. H. B." which I have prepared to go with this deposition, is one of the light and narrow stock crimpers; most all of the crimpers which I have manufactured since August, 1883, have had narrow cores like the exhibit referred to; it will be noticed that the edges of the paper strips adhere together, and thus hold the core in place. October 17, 1883, I applied for a patent for my improved hair-crimper, *i. e.*, a crimper having a non-elastic core enclosed in an envelope of paper, which envelope is provided with a braided covering, the same being cemented to the paper envelope; my application for a patent was allowed March 17, 1884, and the patent will issue having date as of April 29, 1884. I provided the first of my improved crimpers with silver-plated tips, of which I had a large quantity on hand as I have already stated; these clips had no function whatever, and were used only because they gave a finish to the crimper; I considered myself at liberty to use the clips or not as the trade

demanded, and when in the fall of 1883 I went to New York city for the purpose of introducing the goods, I offered to supply the crimpers either with the clips or without them; provided with the clips the crimpers were of course more expensive than with- 90 out them, and as the trade called for a cheap article I left off the clips; this involved no change whatever in the making of the crimpers.

Some time during the early fall of 1883 I first saw the Mills & Hershey patent upon which this suit is brought; I paid no attention to this patent, however, and went on manufacturing my goods; I knew that if the invention claimed in the patent was patentable, the invention had become the property of the public by the use and sale of the article patented for more than two years prior to the filing of the aplication for the patent.

I have mentioned that the crimpers manufactured between the years 1875–1879, were put up in neat slide-boxes, a dozen crimpers being placed in a box; when, however, I resumed the manufacture of crimpors in the summer and fall months of 1883, I abandoned the slide-boxes and wrapped the crimpers in printed slips of papers, thus making bundles of crimpers; this was the simplest, cheapest and most obvious mode of putting the crimpers up, and would suggest itself to any one as the cheapest and most convenient way of preparing them for market; these bundles of a dozen crimpers each were placed in white boxes holding a dozen crimpers each; the white boxes were packed in other white boxes containing six of the small white boxes, or one-half a great gross; a bundle of my crimpers is filed herewith as "Defendants' Exhibit C, G. H. B." One of my small white boxes for a dozen bundles of crimpers is filed herewith as "Defendants' Exhibit D, G. H. B." One of my large white boxes for six of the small white boxes is filed herewith as "Defendants' Exhibit E, G. H. B."

The crimpers manufactured by the complainants are wrapped in printed wrappers in bundles of a dozen each. The wrappers bear in clear type the words "Madame Louie, common sense hair-crimper, patented August 5, 1879." The wrappers also bear the representation of a woman's head, which is always partially exposed. A package of a dozen of the complainants' crimpers 91 is filed herewith as "Defendants' Exhibit F, G. H. B." A dozen of these bundles are packed in small boxes of a bright red color. One of these boxes is herewith filed as "Defendants' Exhibit G, G. H. B." A dozen of these red boxes are packed in a large box; one of these large boxes is filed herewith as "Defendants' Exhibit H, G. H. B." These several exhibits, C, D, E, F, G, and H, themselves demonstrate that I have not copied the complainants' packages.

I remember a conversation which I had some time during the fall of 1883, with Mr. Griggs, of the firm of S. A. Castle & Co., doing business at Leonard St., New York city; I have no doubt but that during this conversation I agreed to furnish them (the company) the crimpers without clips; Mr. Griggs may have suggested leaving off the clips at that time; the idea was not a new one with me, however, several years before I had sold a quantity of crimpers in bulk, without the clips; I did not consider the clips in any way essential to the crimper. and considered myself at liberty to use them or not, as I pleased; the trade demanded a cheap article, and to satisfy this demand I put two grades of crimpers on the market, one grade having the clips and the other grade being without them; the result of this conversation was that the firm of S. A. Castle & Co. were to handle my goods. Some two weeks after this I received a letter from the company, stating that in view of the Mills & Hershey patent they would not handle the goods. In a subsequent interview with Mr. Griggs and Mr. Castle, it was stated by them that they were advised by the proprietors of the Mills & Hershey patent, that my crimper was a direct infringement of said patent, and further, that they, the proprietors, had driven one man out of the field, and would spend $5,000 in driving me out of the field.

I also remember a conversation which occurred between myself and Mr. Giles, of Noyes, Smith & Co., some time during this same fall of 1883; I did not state to Mr. Giles that I had a patent upon my crimper antedating by two years the date of Mills &
92 Hershey's patent; I told him, however of the application which I had pending for my improved crimper. I have read the affidavits of Mr. Heysinger and Mr. Hershey in this cause. As to the relative cost of the goods, I wish to state, that while the cores of a great gross of my crimpers weigh one pound, the cores of a great gross of their crimpers weigh seven pounds; the figures, I believe to be approximately correct. The estimate for my crimpers is based upon the crimpers having narrow cores, as shown in "Defendants' Exhibit B, G. H. B." I make these crimpers exclusively. The paper which I use costs me about seven cents per pound, and that required for a great gross of crimpers costs me about three cents. It will thus be seen my crimpers are much less expensive than those made under the Mills & Hershey patent. I can sell my crimper at the rates given in the affidavits of Messrs. Heysinger and Hershey, and make a good profit.

Mr. Heysinger says in his affidavit that my crimper is inferior to the crimper manufactured under the Mills & Hershey patent, and this for the reason that I use a brass core, while the patented crimper has a lead core. I admit that brass is less ductile than lead, but it is much more tenacious, and consequently more durable as I use it, than lead is in the same capacity. I would also call attention to the fact that a thin strip of metal will bear more flexions without breaking than a thick strip of metal. Furthermore, the core of my improved crimper is protected to a great extent by the paper, which prevents the core from being bent sharply, which is done where there is nothing in the way but the flexible covering. I am at present manufacturing my improved crimper in considerable quantities and my business and trade will be greatly damaged if the injunction prayed is allowed.

GILBERT H. BLAKESLEY.

Sworn to and subscribed before me, this seventeenth day of April, A. D. 1884.

GEO. D. SEYMOUR,
Notary Public.

[SEAL.]

93 United States Circuit Court, Southern District of New York.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER
vs.
HOWARD M. GILES *et al.*, Trading as Noyes, Smith & Company.
In Equity. April Sess., 1884.

STATE OF CONNECTICUT,
County of Hartford, *ss:*

Julius Wright, being duly sworn, deposes and says:

I am sixty-three years of age, and reside at Bristol, Connecticut. I have been engaged as a clock-maker and machinist for upwards of forty-four years.

In the early spring of 1875, I began, in company with G. H. Blakesley, of Bristol, Conn., to manufacture an improved garter of our joint invention. The garter consisted essentially of a tortuous spiral spring, provided with clasps, and having a braided covering of silk which was secured to the ends of the spring by dextrine. In July of this year I sold my interest in the garter business to Mr. Blakesley, and began the manufacture of a novel hair-crimper in the same rooms where he was carrying on the garter business. The hair-crimper consisted of a soft or non-elastic metallic core, 94 having a braided covering of silk which was secured to the ends of the core by dextrine. I was led to using dextrine in this way from having previously used it upon garters. In making the crimpers my long core strips were braided over and then gummed once in two or three inches, according to the length of the crimpers to be produced. The strips were then cut up at the gummed points. The gum served to secure the covering to the core and also to prevent the covering from fraying at the ends. For the purpose of giving a finish to the crimpers I provided them with small metallic clips, which were pinched in place. These clips had no function whatever. They were simply for ornament. In using them it was necessary to have the ends of the covering secured to the ends of the core. Otherwise the covering would be pushed back and aside when the clips were applied to the ends of the crimpers. I mention this to call attention to the fact that the gum was necessarily used whether the clips were employed or not. One of the crimpers, made as described above, is represented by "Defendants' Exhibit Crimper, A. J. W.," which I present to go with my deposition. This crimper was made some time between the fall of 1875 and the spring of 1876. A considerable quantity of these crimpers was made and sold during the time. The crimpers were put up in packages of a dozen each in neat slide-boxes.

These boxes were expensive, but I thought that in introducing a new article it was best to offer it in an attractive form. In the spring of 1876 I parted with my crimper business to Mr. Blakesley, for whom I worked off and on during this spring. During this time Mr. Blakesley made arrangements to provide the crimpers with a double covering; this consisted of an inner covering of cotton and an outer covering of silk. Early in June of this same year, I went to St. Paul, Minn., and was gone about ten days. About this time I went up to the shop one day and found that Mr. Blakesley was passing the core strips through a bath of dextrine after it had received the first or cotton 95 covering. The advantage in applying the gum in this way was that by securing the covering to the core strips throughout the length of the same, it could be cut up in any lengths. It also resulted in a great saving of time and labor, as the operation of applying the gum with a brush, by hand, was slow and tedious. After the core strip left the bath of dextrine it was passed between adjustable rollers by which the surplus or excess mucilage was stripped off. It was then passed to the second braider, in which the final covering of silk was applied, which covering adhered to the cotton covering, the same being moist with gum. After receiving the final covering, the core strip was cut up into crimpers, which were trimmed and packed for shipment.

The arrangement employed by Mr. Blakesley for immersing the core strips in a bath of dextrine, consisted in a pan having a roller journalled in it; the pan was filled with dextrine and located upon a shelf situated beneath the braiders; the core strip was passed under the roller, which was entirely or partially immersed in the dextrine.

JULIUS WRIGHT.

Sworn to and subscribed before me, this sixteenth day of April, A. D. 1884.

GEO. D. SEYMOUR,
Notary Public.

[SEAL.]

96 United States Circuit Court in and for the Southern District of New York.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER *vs.* HOWARD M. GILES *et al.*, Trading as Noyes, Smith & Co. } In Equity. April Sessions, 1884.

STATE OF CONNECTICUT, County of Hartford, } *ss:*

Edward L. Carrington, being duly sworn, deposes and says:

I am twenty-four years of age, and reside in Bristol, Conn., where I am book-keeper for the Sessions Foundry Company. In January, 1875, my father died, and in March or April following I left school and went to work for G. H. Blakesley and Julius Wright, who were manufacturing garters in Bristol, Conn.; the garters consisted of a tortuous spiral spring provided with clasps, and having a braided covering of silk, which was secured to the ends of the spring by dextrine; when I first went to work for Blakesley and Wright, I was taught to run the braiding machines by which the coverings were applied to the springs of the garters; in July of this year Mr. Blakesley and Mr. Wright dissolved partnership, Mr. Blakesley continuing the garter business; Mr. Wright immediately began the manufacture of

97 hair-crimpers in the same rooms with Mr. Blakesley's business; the hair-crimper made at this time consisted of a strip of soft metal having a braided covering of silk, the braiding or covering of the core strip, which was afterwards cut up, was done at the same bench where I was running the garter braiders; the braider used for the crimpers was one of the garter braiders, fitted over for the purpose. After the braider had been started up I was able to look after it as well as my other machines. When the machines were running, I gummed the long garter and crimped strips with dextrine, which was put on with a brush; this gum was applied at points where the strips were to be cut, for securing the covering to the strips at such points. In the fall of this year I left the shop and returned to school, where I continued through the winter. The next spring, that of 1876, I left school and went to work for Mr. Blakesley again; he put me to braiding garters and crimpers, he having acquired the crimper business from Mr. Wright. About this time we began to put a double covering on the crimpers. This consisted of an inner covering of cotton and an outer covering of silk, and involved two braiding operations, the long strips being passed through the cotton braider first and then through the silk braider. When I returned to the shop in the spring, and by this I mean the spring of 1876, a brush was still used for gumming the crimper strips before cutting them up; I continued to gum the strips as I had leisure, for after the braiders were started up they did not require constant attention. Some time in the early summer of this year, 1876, Mr. Blakesley placed a pan of dextrine beneath the braiders and passed the core strip through the gum on its way from the cotton braider to the silk braider. The covering of cotton was already on the strips when it entered the gum. The cotton thus became saturated with the gum. In fact, it took up so much gum, it was necessary to strip off or remove the surplus gum before the strip entered the silk braider. By gumming the strips in

98 this way the covering of each crimper was secured to the core of the crimper throughout its length. The cotton covering was gummed directly to the core, while the silk covering was gummed to the cotton covering. After the strips left the silk braider they were allowed to dry, and then they were cut up into lengths as required. I remember the pan through which the strips were passed. It was a flaring pan and had a little roller journalled in it. The pan was located under the braiding machines. The core strips were passed under the roller, which was entirely or partially immersed in the gum. The surplus gum was stripped off by a pair of small roll-

ers arranged something like the rollers of a clothes-wringer. We were making large quantities of crimpers in this way when I left the shop, in the fall of this year, and returned to school. During this season of 1876, I was sometimes put to trimming and packing the crimpers for shipment. I returned to the shop in the early spring of 1877, and from this time forward I worked for Mr. Blakesley up to October, 1879, when I entered the employ of the Sessions Foundry Co. During the season of 1877 I did some work on the crimpers, but most of the time I was on other work. It was during my first two seasons in the shop, those of 1875 and 1876 that I did the most on the crimpers.

EDWARD L. CARRINGTON.

Sworn to and subscribed before me, this sixteenth day of April, A. D. 1884.

GEO. D. SEYMOUR,
Notary Public.

[SEAL.]

99 Circuit Court of the United States, Southern District of New York.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER
vs.
HOWARD M. GILES, ELDRIDGE G. BROWN, Robert M. Cugle, and Isaac P. Smith, Trading as Noyes, Smith & Co.
In Equity. No. —.

Testimony Taken on Behalf of Defendants, Before John P. Bartlett, Esq., Notary Public, Notice Being Waived, at Bristol, Connecticut.

Present: Joshua Pusey, Esq., counsel for complainants, and George D. Seymour, Esq., counsel for defendants.

Mrs. HENRY K. PAUL, a witness produced on behalf of defendants, deposes and says as follows, in answer to interrogatories propounded by GEO. D. SEYMOUR, Esq., counsel for defendants:

Q. 1. What is your name, age, residence and occupation?

100 Ans. Mrs. Henry K. Paul; thirty years of age; I reside in Bristol, Connecticut, and I am now working in a clock factory.

Q. 2. Have you any hair-crimps here?

Ans. I have.

Q. 3. If so, produce them.

Ans. I now produce them.

(Counsel for defendants offers in evidence the box of hair-crimps produced by the witness, and the same is marked "Defendants' Exhibit No. 1, J. P. B., N. P.")

Q. 4. When did these hair-crimps, now produced by you, come into your possession?

Ans. In the summer of 1876.

Q. 5. What were the circumstances of your getting them?

Ans. Because I worked for Mr. Blakesley, and I got them when I worked for him.

Q. 6. This was in 1876?

Ans. It was.

Q. 7. Do you know how the crimpers were made in 1876, when you were working for Mr. Blakesley, and if so, please explain the mode of making them?

Ans. A long strip of metal was covered with cotton and run through a pan of sizing, then covered with silk, and then cut up in desired lengths, and finished and packed like the Exhibit No. 1.

101 Q. 8. How was the sizing applied?

Ans. After the metal was covered with cotton, it was run through the pan of sizing under the machine, then covered with silk and finished.

Q. 9. Under what machine was the sizing located?

Ans. Under the braiders.

Q. 10. Under the silk or cotton braider?

Ans. Near the silk braider.

Q. 11. After passing through the pan of sizing, did the strip covered with cotton pass directly to the silk braider?

Ans. I think it did.

Q. 12. Was the strip moist when it received the silk covering?

Ans. I think it was.

Q. 13. What was the object of passing this strip through the pan of sizing?

Ans. To have the cotton adhere to the metal, and the silk to the cotton.

Q. 14. What was the object of securing or cementing the cotton covering to the strip, and the silk to the cotton in that way?

Ans. To have it stick firmly in all parts.

Q. 15. What was the object of having it stick at every point?

Ans. So that they could cut it into the desired lengths without fraying.

Q. 16. You mean so that the strip could be cut up without having the covering fray out?

Ans. That is what I meant.

102 Q. 17. How were the crimpers finished?

Ans. By a metal tip punched on the end.

Q. 18. What was this tip used for?

Ans. For finish and ornament.

Q. 19. Could the crimpers be used without the tips?

Ans. They could.

Q. 20. Were they ever used without the tips?

Ans. They were.

Q. 21. When were they so used?

Ans. I think in the summer of 1876.

Q. 22. When you were working upon the crimpers for Mr. Blakesley?

Ans. I think it was.

Q. 23. How do you place the year 1876 as the year in which you were working for Mr. Blakesley?

Ans. Because it was Centennial year, and that was the last of my working for Mr. Blakesley.

Cross-examination by Joshua Pusey, Esq.:

X Q. 24. I understood you to say that the sizing pan was not under the braider laying the first coat of braiding, that is directly upon the metal; am I correct?

Ans. I said the sizing pan was near to or under the second braider that put the silk over the cotton.

X Q. 25. (Question repeated.)

Ans. As near as I can remember the sizing pan stood midway between the two braiders; it could be run either way.

X Q. 26. Which way was it run in point of fact?

103 Ans. I don't remember.

X Q. 27. If the pan stood between the two braiders, how could the metal have reached the pan without receiving one coat of braid previously?

Ans. As I understand it, they started the strip in the pan, and drew it through the pan to one of the braiders.

X Q. 28. (Question repeated.)

Ans. As near as I can remember, the strip was first coated with cotton before reaching the pan.

X Q. 29. Then the cotton braiding was applied to the metal in a dry state and the metal was dry when the cotton braid was applied, was that the case?

Ans. I don't remember.

X Q. 30. You have stated that the sizing was applied after the metal had been braided with the cotton, do you not then know, upon reflection, that the cotton braiding was applied to the metal in a dry state?

Ans. I don't remember.

X Q. 31. Please examine one of the crimpers in box Def'ts' Exhibit No. 1, and state whether or not you find the braiding cemented to the metallic core?

Ans. I don't know as the cotton was cemented to the metal.

X Q. 32. Question repeated; I ask for your best judgment.

Ans. My opinion is that when that crimper was made the cotton was cemented to the metal.

X Q. 33. If not so cemented now, how do you know of your own knowledge that it was ever so cemented?

104 Ans. I suppose that it was made as thousands of others like it were made, and if so it must have been cemented to the metal.

X Q. 34. Please examine another of the same crimpers, and see if you do not find that, by reason of the absence of cement on the metal, the cotton braiding strips readily back from the free-cut end towards the tip?

Ans. Not as readily the first time as after they have been handled. It doesn't strip back until the outside silk is taken off.

X Q. 35. Select another of these crimpers without removing the outside silk as before and repeat the experiment.

Ans. It does not readily strip back; you must put some strength into it to make it strip. After it has been used, or handled, or bent, it will readily strip.

(Counsel for complainants offers in evidence a bunch of crimpers from box Def'ts' Ex. No. 1, which have been cut, the subjects of the above experiments, and the same is marked Compl'ts' Exhibit X, J. P. B., N. P.)

X Q. 36. The tips retain the free ends of the braiding always when the crimper is in use or is bent, or handled, is that not so?

Ans. I should think it was.

X Q. 37. Where were these crimpers used, and under what circumstances, without the metallic tips?

105 Ans. If I remember rightly some of the girls in the shop used them.

Redirect examination by Geo. D. Seymour, Esq.:

R. D. Q. 38. You stated that the object in passing the strip through the pan of sizing was to enable the strip to be cut up at any point without the fraying out of the braided covering, is that so?

Ans. It is.

R. D. Q. 39. The finished strip could then be cut up at any point without fraying?

Ans. It could.

R. D. Q. 40. Would then the ends of the braided covering fray out if the clips were not applied so as to interfere with the use of the crimper for crimping the hair?

Ans. None whatever. No, they would not.

R. D. Q. 41. You have said that the ends of the covering did not fray out at all without the clips; would it not fray out a little in use, in your opinion?

Ans. They would.

R. D. Q. 42. Did you ever run the braiding machines when you were working for Mr. Blakesley in 1876?

Ans. I did not.

R. D. Q. 43. Where were these machines located? In the room that you were working in?

Ans. They were not; they were on the east side of Mr. Jones's factory in a small room on the second story.

R. D. Q. 44. Did you have occasion to go into this room frequently?

106 Ans. I used to go through it daily.

R. D. Q. 45. Was it in passing through this room that you noticed the pan of sizing located beneath the braider?

Ans. It was; and as I stood and talked with the workers by their side.

R. D. Q. 46. You know that sometimes during the braiding of the strips, that is before they were ready for being cut up, they were passed through this pan of sizing?

(Question objected to as suggestive, as leading.)

Ans. I do.

R. D. Q. 47. You will please state again the object of passing the strip through the sizing before the strip was cut up.

Ans. To adhere the cotton to the metal and the silk to the cotton so that the strip could be cut into the desired lengths without fraying.

Recross-examination:

Re-X Q. 48. You have stated in answer to the last redirect question, that the object of passing the strip through the sizing before the strip was cut up was to adhere the cotton to the metal, etc., do you know whether a strip of metal covered in a dry state with a braided coat of cotton, when passed through a pan of sizing, will practically cause the under side of the cotton covering to adhere to the metal when the sizing has been applied to the outer surface of the coat of braided cotton?

107 Ans. I should think it would.

Re-X Q. 49. Would that, in your opinion, be a practical way of cementing such objects together?

Ans. Not being posted in that business I couldn't tell.

Re-X Q. 50. The object of using cement in Mr. Blakesley's crimpers like Def'ts' Exhibit No. 1, was to hold the parts together so that the double-braided strip could be cut into short lengths so as to hold the ends in order that the end clips or tips could be applied and punched on, was it not?

Ans. It was.

Re-X Q. 51. So as to hold the ends without fraying?

Ans. Yes.

Re-X Q. 52. Is it not because that the silk braiding and the cotton braiding were sized together and dried, that is forming an adherent double shell of braids, that the ends are prevented from fraying out when the stuff was cut into lengths?

Ans. The sizing prevents them from fraying out, by sticking the two layers together and by the sizing striking through and sticking them to the metal.

Re-X Q. 53. If the two braided coverings are firmly cemented together and dried and neither were cemented to the metal, how could they fray out?

Ans. Not being in the business and posted, I couldn't tell you.

Re-X Q. 54. You have stated in answer to Q. 18, that the object of the metallic tip was for finish and ornament, were these tips not also used to prevent the ends from fraying?

108 Ans. Not being the inventor I can't tell what all their purpose was; only what he told the hands that they were for ornament. Of course they do prevent fraying in use.

MRS. HENRY K. PAUL.

Subscribed and sworn to before me—

JOHN P. BARTLETT,
Notary Public.

EDWARD L. CARRINGTON, a witness produced by defendants, deposes and says as follows:

Q. 1. What is your name, age, residence and occupation?

Ans. My name is Edward L. Carrington; I am twenty-four years of age; I reside in Bristol, Connecticut; I am book-keeper in the Sessions Foundry Company of said Bristol.

Q. 2. Please examine Defendants' Exhibit No. 1, now handed you, and state if you recognize it.

Ans. I recognize these as the article that I worked on when I worked for Mr. Blakesley.

Q. 3. At what time was this?

Ans. It was during the latter part of the summer of 1875, also in 1876.

Q. 4. Was the article that you made in 1875 exactly like this, that is did it have a double covering?

Ans. The article first made had a single covering. Afterwards it was made with a double covering, one consisting of cotton and one of silk.

109 Q. 5. When was this article exhibited to you made?

Ans. This I worked upon, and was made in '76.

Q. 6. That is, you worked upon an article like the exhibit in 1876?

Ans. Yes, sir.

Q. 7. Do you know how the article was made? If so, please describe the process of making it.

Ans. The process consisted in a metal strip first braided with a cotton covering; this strip, after passing the braider, was carried to a reel over the cotton braider, after which it (the reel) was taken out of its brackets and placed (this reel being full of cotton-covered metallic strip) beneath or slightly back of a silk braider. This cotton-covered strip first passed through a pan containing a cement made from dextrine. It passed beneath the surface so that it was all submerged, and absorbed the cement throughout its whole length, thence (from the pan) through the silk braider receiving its covering of silk, passing up through two feed-rolls and thence to another reel where it was allowed to dry, and afterwards was cut up into desired lengths. Afterwards it received ornamental clips on the ends, after which they were packed in boxes and made ready for shipment.

Q. 8. Can you make a sketch showing the relative positions of the reel filled with the cotton-covered strip, the pan containing the dextrine, the silk braider and the reel which received the silk-covered strip? If so, please make such a sketch.

Ans. I will make such a sketch.

110 (Witness makes such a sketch and the same is introduced in evidence by counsel for defendants and marked "Defendants' Exhibit No. 2, J. P. B., N. P.")

Q. 9. At what time was the arrangement shown in the sketch in use?

Ans. During the summer of 1876.

Q. 10. Did you have anything to do with the braiders?

Ans. I had charge of them, or run them.

Q. 11. You personally operated, then, in the summer of 1876 a braiding machine rigged up with reels and a pan of dextrine, essentially as shown in your sketch?

Ans. I did.

Q. 12. You have stated that a strip covered with cotton was passed through a pan of dextrine, and thence, directly to a braider which applied a covering of silk over the cotton covering. Please state to what extent the cement adhered to the cotton-braided strip.

Ans. It saturated it thoroughly.

Q. 13. The cotton-braided strip, then, was thoroughly wet when it went into the silk braider?

Ans. It was.

Q. 14. Did it ever happen that too much cement was taken up?

Ans. It did.

Q. 15. What was then done?

Ans. It was then necessary to strip it off.

111 Q. 16. Why was an excess of cement upon the strip objectionable so that you stripped it off?

Ans. It would soak through the silk covering, and make a bad-looking job of it.

Q. 17. Would it stain the silk?

Ans. It would.

Q. 18. You have stated that the crimpers were provided with ornamental clips. Were these clips essential to the usefulness of the crimper?

Ans. They were not.

Q. 19. Were the crimpers ever used without them?

Ans. They were.

Q. 20. What do you know about the use of the crimpers without the clips?

Ans. I know that the girls employed in the factory used them without the ornamental clips for crimping the hair, and they had them on and used to wear them there in the shop. That is where I saw them.

Q. 21. You saw the crimpers so worn in the summer of 1876 when you were working for Mr. Blakesley?

Ans. I did.

Q. 22. About how late in the year 1876 did you work for Mr. Blakesley?

Ans. About October 1st.

Q. 23. Did you work for Mr. Blakesley the next summer?

Ans. I did.

Q. 24. What work did you then do?

Ans. Principally making clock pendulums.

112 Q. 25. You have stated that you worked upon hair-crimpers in the years 1875 and 1876, and in the year 1876 upon hair-crimpers like the Defendants' Exhibit No. 1. Did you do any work upon hair-crimpers after 1876?

Ans. Yes; somewhat in the early part of the spring of 1877, although only now and then a day, possibly. My principal work was upon pendulums in that season.

Q. 26. How do you place 1875 as the year in which you went to work for Mr. Blakesley?

Ans. On account of its being the year of the death of my father, and of my leaving school that spring and entering the shop.

Q. 27. In what year were the most crimpers made?

Ans. In the summer of '76.

Q. 28. It was then that you were running the braider like that shown in your sketch?

Ans. It was.

Q. 29. Are you interested in this case pecuniarily?

Ans. I am not.

Cross-examination by JOSHUA PUSEY, Esq.:

X Q. 30. The article referred to in answer to Q. 4, as having been first made while you were with Mr. Blakesley, having a single covering was a garter, was it not?

Ans. I had reference to the crimper.

X Q. 31. How was that crimper made?

Ans. It was made by braiding a single covering of a metal strip.

X Q. 32. How was this braiding secured to the strip?

113 Ans. It had no way of securing it, simply being braided over the strip.

X Q. 33. Were crimpers made in that way worn by the girls in the factory?

Ans. They might have been. I don't remember.

X Q. 34. Were they ever put upon the market, do you *no?*

Ans. I think they were.

X Q. 35. These had clips on the end I presume.

Ans. They did.

X Q. 36. What was the purpose of those clips on those crimpers?

Ans. The purpose on these was to prevent them from fraying.

X Q. 37. You also assisted early in 1875, when you were in Mr. Blakesley's employ, in the manufacture of garters consisting of a tortuous spiral spring provided with clasps and having a braided covering of silk which was secured to the ends by dextrine, did you not?

Ans. I did.

(Counsel for defendants objects to this line of examination, as to the garters and crimpers of 1875, as not having been introduced or touched upon in the direct examination.)

X Q. 38. Please explain the precise mode of manufacture of the garters made by you at this time.

Ans. They consisted of a coiled spring, braided over with
114 a silk covering, this covering being put on while the spring
was stretched or extended; after being braided they were allowed to spring back to their normal condition thus giving an excess of covering which when the spring was stretched to the limit

of the covering, the covering acted as a stop to prevent the setting of the spring. These coils of wire thus covered were cut up at certain points, and at these points before cutting they were also stuck with dextrine and afterwards fitted out with the clasps, which were flattened over these points where the dextrine was stuck and the wire cut. The clasps and the dextrine prevented the covering from unraveling.

X Q. 39. Was not the object of gumming the covering at intervals, to cement or hold the threads together, while being cut?

Ans. Yes. It was both for the purpose of preventing it (the covering) from unraveling and holding it in place after being cut and before the clasp was put on.

X Q. 40. I infer then that the clasps were used for permanently holding the covering at these points; am I correct?

Ans. No, not exactly; this clasp was like a buckle to hold the ends together when brought about the limb, and at these points they were fastened to the spring. It served also to hold the covering to the spring.

X Q. 41. What did you make when in Mr. Blakesley's employ at this time, immediately subsequent to these garters?

Ans. We made crimpers immediately after and at the same time that we were making the garters.

115 X Q. 42. Was the manufacture of the garters commenced before that of the crimpers?

Ans. Yes, sir; it was.

X Q. 43. How were these crimpers made that were made after the manufacture of the garters was commenced?

Ans. They were made as I before stated, by braiding a single covering over the metal strip, and after being removed from the braider, it was stuck at intervals with a brush with this dextrine solution; after thoroughly drying, it was cut at these points where it was stuck, and then the clips were swaged on in another room by a foot press.

X Q. 44. The object of using the dextrine in this way, with these crimpers, was to keep the ends of the braid from fraying or unraveling, so that the end clips could be put on?

Ans. Yes, that was the object; so as to keep the covering from unraveling during the process of manufacture.

X Q. 45. Just as in the case of the garters, was it not?

Ans. This gumming process at these points was also for preventing unraveling while in use, hence the system afterwards adopted of gumming the crimper strips their whole length.

X Q. 46. How could the gumming at the ends of these crimpers prevent the ends from unraveling while in use, when these same ends were held by metal clips, swaged down upon them?

Ans. These clips were ornamental. If they became detached, as was very easily the case, the dextrine would prevent the unraveling.

116 X Q. 47. Was it not a fact that the sole object of the use of these gummed spots was to hold the braiding, or rather

its cut ends, and keep it from fraying, so that the end clips could be properly applied?

Ans. I think it was as made first, possibly, with the single covering, but as afterwards made with the double covering, it (the clip) was not needed to prevent the ends from unraveling. That is as I recollect it.

(Counsel for complainants objects to that part of the foregoing answer relative to the double covering, etc., as not responsive to the question.)

Witness excused until recalled by consent of counsel.

Sophia E. Bracken, a witness produced on behalf of defendants, deposes and says as follows:

Q. 1. What is your name, age, residence and occupation?

Sophia E. Braken; I am twenty-four years of age; I reside in Bristol, Connecticut; and I am engaged in teaching school.

(Defendants' counsel hands Defendants' Exhibit No. 1 to the witness, and requests her to examine the contents critically, and state if she recognizes the article.)

117 Ans. I do recognize the article as a hair-crimper, made in Mr. Blakesley's shop, when I worked for him in the year 1876.

Q. 2. Do you know how the article was made? And if so, please describe briefly the mode of making it.

Ans. There was a strip of metal covered over with cotton, then brought through a pan of dextrine; then covered over with silk; then taken off and cut up into certain lengths, and those clips put on both ends. Then they were packed and shipped, and were ready for use.

Q. 3. You have described the way crimpers were manufactured when you were working for Mr. Blakesley in 1876, were you?

Ans. Yes.

Q. 4. Why were the clips applied to the crimpers as you have described them?

Ans. For ornament.

Q. 5. Could the crimpers be used without the clips?

Ans. They could.

Q. 6. Were they just as good so far as crimping the hair was concerned?

Ans. They were.

Q. 7. Did you ever wear any crimpers without the clips?

Ans. I have.

Q. 8. When did you wear such untrimmed crimpers?

Ans. When working for Mr. Blakesley in the year 1876.

Q. 9. I understand, then, that you yourself used these untrimmed crimpers while working for Mr. Blakesley in 1876?

118 Ans. I did.

Q. 10. Did the covering of the untrimmed crimpers worn by you fray out so as to interfere with your wearing the crimpers at all?

Ans. It did not.

Cross-examination by JOSHUA PUSEY, Esq.:

X Q. 11. Have — ever worn crimpers like Defendants' Exhibit No. 1, with the clips?

Ans. I have.

X Q. 12. Did you, or did you not, find these clips objectionable by reason of catching the hair and being apt to hurt the head in lying down, or for any other reason?

Ans. I never found them to hurt in lying down. I might have when I was not particular about winding my hair about them found them liable to catch the hair; I have also worn them when they didn't trouble either way.

X Q. 13. Please examine Complainants' Exhibit X, pieces of crimper from Defendants' Exhibit, No. 1, and state if you do not find that the braiding does not adhere to the metal strip, but readily can be pushed back from the cut end, and is only held at the other end by the clip.

Ans. Well, I don't think you can push it back entirely; only a little. I think it can be pushed back as far as the grain or the mass of the silk permits. You can push it back a little way.

X Q. 14. In these crimpers that you stated you wore without the clips, such as Defendants' Exhibit, No. 1, was not that braiding liable in use to strip off of the metal to such an extent as to make such an article, (that is, without the end clips to fasten,) practically unsaleable in the market? 119

Ans. As far as my use was concerned, I found no fault with them. They never unraveled enough to interfere with my use of them. In packing those I took those that were without the clips because I didn't think they were so ornamental, but they were just as good for my use.

X Q. 15. Independant of the ornamental part, if you had had to buy these crimpers in the market, in which case you would expect to use them frequently, would you not at the same price prefer those with the end clips that fastened the braid, to those you have referred to as without the end clips?

Ans. As far as my use is concerned, I would rather have them without the clips.

X Q. 16. Please examine this piece of Complainants' Exhibit X, which you have previously examined, and state if you do not find that in fact the braiding is not cemented to the metal core.

Ans. I find that at the edge it slips, but that elsewhere it seems to be cemented.

Redirect examination:

R. D. Q. 17. Did you have any trouble with the untrimmed crimpers worn by you in 1876, caused by the raveling or slipping of the covering upon the strip?

Ans. I did not.

SOPHIA E. BRACKEN.

120 Subscribed and sworn to before me.

JOHN P. BARTLETT,
Notary Public.

Adjourned to Wednesday, Sept. 24, 1884, at 9 a. m.

JOHN P. BARTLETT,
Notary Public.

BRISTOL, CONN., *Sept.* 24, 1884—9 a. m.

Present: Counsel as before.

Continuation of the cross-examination of the witness EDWARD L. CARRINGTON:

X Q. 46*a*. As I understood from your description of the manufacture of crimpers, Defendants' Exhibit No. 1, the cotton-braided metallic core was passed through dextrine solution, then continued onto the silk braider, immediately above it and on its way after having received the silk braiding, passing between feed-rollers, did these feed-rollers compress the strip thus covered with considerable force?

Ans. They did.

X Q. 47*a*. Please examine one of the crimpers of Defendants' Exhibit, No. 1, and state if you do not find that the coat of cotton braid is thicker than the coat of silk braid.

Ans. I think it is on account of the cotton being coarser than the silk.

X Q. 48. How then, if as you say these feed-rollers strongly compressed the strip of material, can you explain that
121 the dextrine solution should pass freely through the cotton
coat, that is the thicker coat, onto the metal strip, and yet that this same pressure of the rollers should not bring the dextrine out through the surface of the silk? Must not the penetration outwards be equal to and correspond with that inwards?

Ans. We found it necessary also to employ two rubber rolls placed immediately above the pan and yet below the silk braider for the purpose of stripping off this surplus amount of dextrine solution. The pressure of these rubber rolls had a tendency to make the cotton covering adhere to the metal strip as much as is possible for it, as the metal being non-absorbent it would not take up the solution. These rubber rolls had a tendency to take the dextrine from the surface of the cotton-covered strip to such an extent as that it would not penetrate through to the surface of the silk covering.

X Q. 49. As you do not show these rubber rolls in your sketch, Defendants' Exhibit No. 2, and as you have previously stated that this stripping off was only sometimes done, I infer that the rubber rolls, instead of being a necessary or important part of the apparatus, had only been used occasionally or to a limited extent, am I right in that inference?

Ans. Although the rubber rolls are not shown in the sketch, my belief is that they were used almost constantly after the introduction of the pan of dextrine solution. They were necessary on account

122 of the liability otherwise of the surplus dextrine striking through and staining the silk covering and making an "unfinished job of it," as I said in my direct examination.

X Q. 50. Granting this, and the cotton covering being thicker than the silk one, and surrounding a non-absorbent metal core, and being, as you have said, th-roughly saturated with the dextrine solution when it passed under the silk braider and between the hard compressing feed-rollers, please explain, if you can, how the solution was not forced out through the thinner silk coating?

Ans. The rubber rolls being also compressed together, my recollections are that they did remove the dextrine to such an extent that though the cotton covering was thoroughly saturated, they, the rubber rolls, did sufficiently remove it, the solution, so that it did not penetrate the silk covering.

X Q. 51. What was the material of these compression rolls marked F in your sketch, Defendants' Exhibit No. 2?

Ans. Iron or steel—metal of some kind.

X Q. 52. Were these compression rolls, F, geared together?

Ans. No; they were compressed by a spring. One was positively driven by connection with shafting, and the other rotated by friction upon that one, or through the interposed strip.

X Q. 53. What function did the spring perform in this construction?

Ans. It performed the function of pressing, or keeping a tension between, the rollers and strip.

123 X Q. 54. Referring to your answer to X Q. 50, in connection with what you stated previously, do I understand you to mean that the thick cotton covering was thoroughly saturated with a fluid solution, but yet was in such a condition, after having passed between the rubber rolls, that nothing could be squeezed out of it, or if it could be, that it did not penetrate and pass through the thin outer coating of silk, although the cotton lay upon a metallic non-absorbent core?

Ans. The dextrine did not penetrate through the silk covering to such an ext*a*nt as to impair the looks of the crimpers.

X Q. 55. Did it pass through the outside covering sufficiently to make it sticky on the outside?

Ans. No. It entered into the silk covering sufficiently to cement it to the cotton covering, but did not penetrate through.

X Q. 56. If that were true, is it not also true that the solution entered the cotton covering sufficiently to cause it to adhere to the silk covering, but did not penetrate through to the metallic core?

Ans. On account of the cotton-covered strip passing through the pan, beneath the surface of the dextrine, it absorbed such an amount of dextrine as that the dextrine passed through on to the metallic core.

X Q. 57. That is, it had a preference to go to the metal rather or more than to the silk covering?

Ans. The great surplus of dextrine received on the cotton-covered strip while passing through the pan was sufficient to
124 thoroughly saturate and penetrate through the cotton, while

that to be absorbed into the silk texture would necessarily be taken from that already contained in the cotton covering after passing through the rubber stripping rolls.

X Q. 58. Do you know of your own actual knowledge that this operation in fact cements the cotton coating firmly to the smooth metallic core, or have you not merely reasoned out or assumed that such is or must be the result of the process of manufacture employed by Mr. Blakesley?

Ans. I know the cotton covering was cemented to the metallic strip as much as is possible for it to be; the metal of course being a non-absorbent would not hold it to any great extent.

X Q. 59. Did you ever closely examine or make any experiments with the crimper, such as Defendants' Exhibit No. 1, to see whether the cotton braiding was to any appreciable extent cemented to the metallic core?

Ans. No; I never made any experiments, but working on them I am of course familiar with their construction.

X Q. 60. Did you work on the cutting up of these strips, or putting the clips on, or anything except the formation of the continuous strips by the machinery you have described?

Ans. I did. I also worked cutting up and putting on clips.

X Q. 61. What persons beside yourself were employed by Mr. Blakesley in the manufacture of these crimpers?

125 Ans. Julius Wright, of Bristol; Miss Bracken; Mrs. Dr. Tyler, of Bristol; Mrs. H. K. Paul. Then as to the following I am not certain whether they worked on crimpers or on pendulums for Mr. Blakesley: Dr. L. Robinson, Mrs. Geo. A. Gowdy, F. B. Mitchell.

Redirect examination:

R. D. Q. 62. You have stated in reference to the manufacture of the garters, that the covered coil was gummed at intervals to facilitate cutting the coil up into garter lengths. Will you state how the gum assisted in the cutting up of the coil?

Ans. It prevented its unraveling, and it helped to cement the covering to the spring to some extent.

R. D. Q. 63. Would or would not the knives of the cutting machine be dulled by cutting the metal?

Ans. They would by constant use, of course.

R. D. Q. 64. The knives then, would naturally be dulled by cutting up the covered metal coil?

Ans. They would.

R. D. Q. 65. Would or would it not require comparatively sharp knives to cut the strands of the silk covering, without pulling them, unless some provision were made for preventing them from being so pulled?

Ans. It would.

R. D. Q. 66. Was it not then necessary, in order to avoid frequently changing or sharpening the knives of the cutting machine, 126 to make some provision for holding the covering to the coil at the points where it was cut to prevent the strands from being pulled by the knives after becoming dull?

Ans. It was necessary.

R. D. Q. 67. Did or did not the cement answer this purpose of preventing the threads from being pulled while the covered coil was being cut up?

Ans. It did.

R. D. Q. 68. Was the coil trimmed with the clasps before or after being cut up?

Ans. After.

R. D. Q. 69. The necessity of using the cement, then, arose before the trimmings were applied, and the first object of the cement was to facilitate cutting the coil; am I right?

Ans. Yes.

R. D. Q. 70. You have also stated that the cementing of the covering facilitated the application of the clasps, but as the clasps were not applied until after the covered coil was cut up, and as it was necessary to apply the cement to the coil before it was cut up, was not the use of the cement, so far as it facilitated the application of the clasps, rather incidental to its first use of assisting the cutting up of the coil?

(Question objected to by counsel for complainants as leading and suggestive.)

Ans. It was incidental.

127 R. D. Q. 71. You have stated that you began the manufacture of hair-crimpers while you were manufacturing garters as described, will you describe again the mode of making the crimper produced at the shop in 1875?

Ans. The process consisted of braiding a covering of silk over a metal strip which was afterwards stuck with dextrine at points at equal distances from each other, the dextrine being applied with a brush. The strip thus gummed was cut up at the points where dextrine was applied and afterwards supplied with ornamental tips.

R. D. Q. 72. Can you tell why the dextrine was applied to the crimper strip before it was cut up?

Ans. To prevent its unraveling and assist in the cutting; also to cement the ends of the silk to the metal core.

R. D. Q. 73. Were, or were not, the knives of the machine dulled by cutting the metal crimper strip the same as they were dulled by cutting the garter coil?

Ans. They were.

R. D. Q. 74. Was it not then necessary to avoid replacing or sharpening the knives to make some provision against the pulling of the braided covering of the crimper strip by the knives?

(Objected to by counsel for complainants as leading.)

Ans. It was necessary.

R. D. Q. 75. Did or did not the cement, which you have described as being applied to the crimper strip before it was cut up, answer this purpose?

Ans. It did.

R. D. Q. 76. What, then, would you say was the first object of applying the cement to the crimper strip?

128 A. To facilitate the cutting process and to prevent a frequent sharpening of the knives, or applying new ones.

R. D. Q. 77. Was or was not the cement useful in the subsequent finishing operations?

Ans. It was.

R. D. Q. 78. Will you explain how?

Ans. It also prevented its unraveling while being handled and going through the process of manufacture.

R. D. Q. 79. You have stated that the cement facilitated the application of the clips, is that so?

Ans. It is.

R. D. Q. 80. You have also stated that the cement prevented the unraveling of the covering in case the clips became detached, is that so?

Ans. It is.

R. D. Q. 81. Were or were not, then, the clips necessary to prevent the covering from unraveling?

Ans. They were not.

R. D. Q. 82. Were or were not the clips necessary to prevent the unraveling of the crimpers made in 1876, which, as you have described, had the covering cemented to, and throughout the length of the strip?

Ans. They were not necessary.

R. D. Q. 83. Can you locate in your sketch marked Defendants' Exhibit No. 2, the position of the stripping rollers, which you have referred to?

Ans. I can.

R. D. Q. 84. Please make such a sketch.

129 Ans. I make the sketch requested and produce it for examination.

(Sketch is made by the witness, introduced in evidence by counsel for defendants, and the same is marked "Defendants' Exhibit, No. 3, J. P. B., N. P.")

R. D. Q. 85. Were the stripping rollers shown in the sketch in that position and in use when you were working for Mr. Blakesley in the summer of 1876?

Ans. They were.

R. D. Q. 86. Were they in use when you were running the braiders during that time?

Ans. Yes, they were.

Recross-examination:

Re-X —. 87. How was this sizing solution used in the manufacture of the crimpers such as Defendants' Exhibit No. 1, made?

Ans. It was made of powered dextrine mixed with cold water, to the thickness of —. It, the dextrine was poured into the pan of water and stirred until the desired thickness was reached. I don't know just what to compare it with. I don't know the proportions of each part used.

Re-X Q. 88. Did you do the mixing yourself sometimes?

Ans. Yes.

130 Re-X Q. 89. Then can't you tell, pretty nearly at least, what the proportions of the dextrine and cold water were?

Ans. We had no rule. The dextrine was mixed with the water until it became very sticky and still fluid.

Re-X Q. 90. Do you mean sticky to the fingers?

Ans. Yes; till it had adhesive power to any absorbent of it.

Re-X Q. 91. Do you know what sizing is?

Ans. No; I don't think I do.

Re-X Q. 92. Was this mixture of dextrine and water always made by guess-work in that way?

Ans. We might have had some rule. I don't recollect what it was if we had.

Re-X Q. 93. Was this solution of dextrine always the substance that you used in the manufacture of these crimpers?

Ans. Yes.

Examination closed.

EDWARD L. CARRINGTON.

Subscribed and sworn to before me—

JOHN P. BARTLETT,
Notary Public.

JULIUS WRIGHT, a witness produced on behalf of defendants, deposes and says as follows:

Q. 1. What is your name, age, residence and occupation?

Ans. Julius Wright is my name; I reside in Bristol, 131 Connecticut; I am sixty-three years of age, and I am a mechanic by occupation.

Q. 2. What business were you in in the early part of 1875?

Ans. Well I commenced with Mr. Blakesley to make the garters.

Q. 3. Will you describe how the garters were made?

Ans. Well, in the first place we had fine brass wire drawn. We then had a machine for winding or coiling it in long strips. We then cut them up in desired lengths. These were connected together with what we called a "spud" or bar; there was a circle on each end of it that slipped into the end of the coil just enough to allow it to be slipped over its head and fastened.

Then they were placed on a reel that stretched them to a certain length. Then they were passed up through the machine and braided—that being done while they were stretched it left the coil a little ways apart for elasticity—they were then taken off the reel ready to be cut apart. In order to cut them up and not have it fray out we had to use dextrine. They were then ready for the clasps to be put on, then to be packed and put away.

Q. 4. Could, or could you not, have cut up the covered coil, or covered series of coils, without the use of dextrine without having the covering fray?

Ans. No, we couldn't.

Q. 5. What was it that made the covering fray?

Ans. It dulled the shears that we cut the brass with so that they wouldn't cut the silk.

132 Q. 6. You mean, do you not, that the metal of the coil, or in other words, the spuds that united the coils dulled the shears?

Ans. Yes, sir.

Q. 7. What do you mean by saying that the covering would be frayed by the dulled shears if the dextrine were not there to hold it in place?

Ans. Well, the silk would be all fringed out that was cut, and some of the threads wouldn't be cut, but would pull down between the shears.

Q. 8. You mean, then, that the tendency of the dulled shears was to fringe and pull the silk threads of the covering, if such fringing and pulling were not prevented by the cement?

Ans. Yes, I do.

Q. 9. Was any subsequent advantage derived by the use of the cement?

Ans. Well, it held the silk in place while we put on the trimmings.

Q. 10. The first object and need of the cement was what?

Ans. The main object was to secure and stiffen the silk so that it would cut off clean without fraying or pulling.

Q. 11. How was the cement applied?

Ans. With a brush.

Q. 12. And what was the cement you used?

Ans. Dextrine.

Q. 13. What were you doing in the latter part of the year 1875, that is, after July?

133 Ans I made up some hair-crimps.

Q. 14. Please explain how these hair-crimpers were made?

Ans. In the first place I had copper rolled down to the proper thickness, then it was sheared up; it was then put onto a reel and run up through the braider and braided with silk. Then I had this taken off a reel and stretched out on a bench, and at certain lengths that I wanted to cut the crimps, I used the dextrine with a brush for the same purpose that we did for cutting up the garter, that is, to assist in cutting up. Then those that I made, I made a little brass tip, as I called it, which I put on to give the crimper a finish or ornament, whichever might be proper.

Q. 15. Will you state again, your object in applying the cement to the crimper strip?

(Question objected to as to a repetition, which can have no effect except to give the witness an opportunity to modify his previous answers to the same question.)

Ans. It was to adhere the silk to the metal, and stiffen it, so as to cut it.

Q. 16. If, as you say, the tips were for ornament, why did you consider it necessary to use them?

Ans. In order to make them appear better in market. I considered that it gave them a more finished look.

Adjourned to September 25th, at 9.30 a. m.

JOHN P. BARTLETT,
Notary Public.

134 BRISTOL, CONN., *September* 25, 1884—9.30 a. m.

Present: Counsel as before.

Examination of the witness WRIGHT resumed:

Q. 17. Suppose you left the clips off, or that they became detached, was there anything to prevent the ends of the covering from fraying, or the covering from slipping on the strip?

Ans. The dextrine held the covering secure to the metal.

Q. 18. About how long did you manufacture hair-crimps in this way?

Ans. I couldn't give any definite time. I made up twenty-five or thirty gross, I think thirty, but I couldn't state how long I was at work at it; it might have been a month or two months.

Q. 19. Did you get through in the year 1875?

Ans. I did; it was in the fall of '75.

Q. 20. Did any one go on with the manufacture of hair-crimpers, then or later?

Ans. Mr. Blakesley went on and manufactured them.

Q. 21. Did you ever see the manufacture of the crimpers as carried on by Mr. Blakesley?

Ans. I saw him braiding some of them.

Q. 22. How was this braiding done, as you saw it?

Ans. The first that I saw of it was in the spring of '76. I was up at the factory to settle some little business affair between us. 135 I stepped into the braiding-room and saw that he had taken a different method from what I had used. He then had a strip of this metal on a reel placed beneath the machine and above this reel, near to the braider, was a dish of dextrine that he was passing the metal up through under a roll, or rod, to immerse it in the dextrine. It then went up through and was covered, braided with silk.

Q. 23. Was the metal covered or not when it entered the pan?

Ans. It was not covered.

Q. 24. Did you notice the braided strip as it emerged from the machine?

Ans. I did.

Q. 25. What was its appearance?

Ans. It looked wet and discolored.

Q. 26. Do you remember making any remarks about that at the time?

Ans I asked Mr. Blakesley if they wouldn't become sticky by doing up in damp hair, so as to stick to the hair.

Q. 27. What would be the effect of passing the plain strip through the cement or dextrine and then applying the silk covering to the strip while wet with the dextrine?

Ans. It would secure the covering to the metal.

Q. 28. Do you know whether crimpers made in this way had any other covering applied to them before they were marketed?

A. I didn't see any other covering put on.

Q. 29. Do you know whether Mr. Blakesley afterwards made any different crimper from this?

Ans. He showed me some later that were covered double, braided with double covering.

136 Q. 30. Do you know how these double-covered crimpers were made?

Ans. No more than what he told me.

Q. 31. He explained to you then how he made them?

Ans. Yes; he said he braided them in the first place with the dry silk or cotton, I don't exactly recollect which; then he passed them through the dextrine and put on the second covering.

Q. 32. Do you remember of ever seeing the machines running when he was making the crimpers with the double covering?

Ans. I do not remember of seeing them.

Q. 33. About at what time did Mr. Blakesley show the double-covered crimper to you, and explain the way he made it?

Ans. I think it was in the latter part of June.

Q. 34. How did you secure the tips to the crimpers made by you?

Ans. I done it in a pair of dies in a small press. In the upper die was a pointed punch that indented both the tip and the metal in the crimp.

Q. 35. Was that done to hold the covering in place or not?

Ans. It was not for that purpose.

Q. 36. What was it done for?

Ans. It was done for a finish to the crimp.

Q. 37. I mean why did you arrange the dies to indent the clip and the strip?

Ans. I done it to secure the tip from coming off in using the crimp.

137 Q. 38. You stated that Mr. Blakesley showed you a double-covered crimper, and explained how he made it in the latter part of June, as you thought; what year was this?

Ans. 1876.

Q. 39. From what you know about the action of dextrine, would or would not the double covering applied as Mr. Blakesley described it to you be stuck to the metal?

Ans. I should calculate it would by passing between the feed-rolls.

Cross-examination:

X Q. 40. Have you any of those garters which you made in 1875 at present?

Ans. I haven't any.

X Q. 41. Do you know where there are any?

Ans. I do not.

X Q. 42. Have you seen any recently?

Ans. I haven't seen any.

X Q. 43. You patented this garter, did you not?

Ans. Myself and Mr. Blakesley patented it.

X Q. 44. When was it patented?

Ans. I couldn't give just the date. I think it must have been in the year 1874, though I'm not sure.

X Q. 45. You recollect making an affidavit in this case on the 16th of April, 1884, do you not?

Ans. I recollect making an affidavit, but the date I can't give you.

138 X Q. 46. Have you had conversations with Mr. Gilbert H. Blakesley since then in reference to or concerning your giving of testimony in this case?

Ans. I have had conversations with him, but not particularly on that point as I know of.

X Q. 47. Haven't you talked between you since the time referred to and quite recently in regard to your testimony in this case in some way?

Ans. Not at all until he told me some three or four days before last Tuesday that that was the day to commence the examination again.

X Q. 48. You have had a conversation or conversations on this matter since then, haven't you, with Mr. Blakesley?

Ans. We have spoken of it together.

X Q. 49. Hasn't Mr. Blakesley had an interview with you in which this matter of your testimony in this case was discussed, within the past twenty-four hours?

Ans. He came to see me last evening.

X Q. 50. That is after you commenced giving your testimony here?

Ans. That would be so; it was last evening.

X Q. 51. Do you recollect what you stated in your previous affidavit above referred to; I mean the substantial facts contained therein?

Ans. I don't know what you mean were the "substant*a*ial facts."

X Q. 52. Do you know about what was in the affidavit?

Ans. I don't recollect the run of it.

139 X Q. 53. Do recollect the facts stated therein?

Ans. The most I can say is that I gave the affidavit at the time; it has gone from me, the particulars.

X Q. 54. You did not state in that affidavit that when you visited Mr. Blakesley's factory in the spring of 1876, after your return from the West, that you saw Mr. Blakesley passing strips of metal through dextrine, and then braided over the metal so prepared, but you did state that about this time you went up to his shop and found that Mr. Blakesley was passing the coarse strip through a bath of dextrine after it had received the first or cotton covering. How do you explain this discrepancy between your statements given here in answer to Q.'s 22–28, both inclusive, and the statement in your affidavit?

Ans. Well, there were two different times that I was at the factory. The first time, was along, I think, in the latter part of May, I should say it was, that was the time I saw the bare metal going through the dextrine.

X Q. 55. What did you see the other time of these two different times?

Ans. He showed me the double-covered crimps.

X Q. 56. Did you see Mr. Blakesley making these double-covered crimps or any part of the process of manufacturing them, or did Mr. Blakesley merely show you the finished crimpers and explain to you how they were made?

Ans. He merely showed them to me and explained the change he had made.

X Q. 57. When was this?

140 Ans. This was soon after I returned from St. Paul, Minnesota.

X Q. 58. Do you not recollect saying and swearing to the facts in your affidavit previously made in this case, and hereinbefore referred to, that early in June of the year 1876, you went to St. Paul, Minnesota, and on your return, or about then, you went to Mr. Blakesley's shop, and found him passing the coarse strip for crimpers, through a bath of dextrine after it had received the first or cotton covering?

Ans. I can't say that I now recollect that passage in it.

X Q. 59. Is your memory poor generally?

Ans. I don't know as that has anything to do with the case, but I don't know but that it is as good as people's in general.

X Q. 60. What is the reason that you did not state in this affidavit that you had seen at the time referred to in your testimony here, Mr. Blakesley passing the uncovered strip of metal through a dextrine bath and then braiding over the metal thus coated with dextrine?

Ans. I don't think the question was called.

X Q. 61. When was it first called to your attention and by whom?

Ans. The first that I heard of the case at all I think Mr. Seymour and Mr. Blakesley came to see me about it, and at that time I made the same statement to them that I made here to-day, about seeing the bare metal being run through the dextrine.

X Q. 62. Did you read over your affidavit before you signed it and swore to it, or was it read to you?

141 Ans. I think Mr. Seymour read it; I didn't read it myself.

X Q. 63. Did you ever see any crimpers made, or after they were made by Mr. Blakesley from the uncovered metal core run through a pan of dextrine and braided over as described by you?

Ans. I don't recollect of seeing any only on the reels as they were being braided.

X Q. 64. Did the dextrine come through and make the outside of the braiding sticky?

Ans. I couldn't say about that. I didn't feel of it to see whether it was sticky or not.

X Q. 65. You stated in answer to Q. 26 that you asked Mr. Blakesley if crimpers made in that way would not become sticky by being done up in damp hair so as to stick to the hair. What did Mr. Blakesley reply?

Ans. I don't recollect what the reply was, if any.

X Q. 66. You were led to ask this question, were you not, because, as stated in your answer to Q.'s 24 and 25, the braided strip as it emerged from the machine looked wet and discolored, is that the case?

Ans. That is what drew my attention to it. My first impression was that that would become sticky with moist hair, and stick to the hair.

X Q. 67. Is that your present opinion?

Ans. It appears to me that way now, whether it is right or wrong.

X Q. 68. A crimper sticky on the outside in any part would be an objectionable crimper, would it not?

142 Ans. It would only be my impression that if it became sticky in any part it would be unsuitable for the occasion.

X Q. 69. Then a crimper thus sticky at the ends on the outside would be unsuitable for the occasion unless covered so as to protect the sticky parts?

Ans. It would be the same in proportion, I should suppose, as the dextrine was on them.

X Q. 70. These end clips, used by you and continued to be used by Mr. Blakesley, covered over the ends at which the dextrine was applied?

Ans. They covered them partially or quite; I don't know that in every case it covered the whole.

X Q. 71. Then the function of these end clips was not entirely ornamental?

Ans. They were put on for no other purpose than for a finish to the goods.

X Q. 72. Was not the only object or purpose in your mind in applying the solution of dextrine to the braided crimpers as made by you, to stiffen, size or fix the threads of braiding so that the cutting could be better done and the tips afterwards be more readily put on?

Ans. I went through that process to adhere it to the metal so that it did make the crimpers cut up better and also was a help in putting on the tip.

X Q. 73. Was this daubing on of the dextrine solution with a brush done rapidly or otherwise?

A. Well it was a rather slow process.

X Q. 74. You did it as fast as you could, didn't you; that is working reasonably as ordinarily?

143 Ans. Well it would be reasonable to suppose that it was done so.

X Q. 75. In making these crimpers by you, and as you saw Mr. Blakesley make them, I understand that you took a sheet of copper rolled down to a suitable thickness, and of course made smooth, then cut the sheet into strips of suitable width, preparatory to covering them with braiding. Is that the way it was done?

Ans. That was the way I had it done. I didn't see any of his stuff being stripped up.

X Q. 76. How did you make this sizing or solution of dextrine, which you applied by the brush, as mentioned by you?

Ans. It was only dextrine dissolved in cold water.

X Q. 77. About as thick as ordinary sizing, or how?

Ans. I intended to have it thick enough to make body enough to have it hold the silk firm.

X Q. 78. What proportion of dextrine did you use, say with a two gallon bucket of water?

Ans. I didn't mix it by proportions, I mixed it until it appeared to be about the consistency for what I wanted.

X Q. 79. Can you swear positively that the solution of dextrine which you used and put on the outside of the braiding, did effectually cause the underside of the braiding to adhere to this smooth, rolled surface of the strip of copper, in a manner to retain the cover, firmly cemented to the metal through the various bendings to which such crimpers are put in practical use?

144 Ans. I considered it sufficient to make it adhere.

X Q. 80. Make what adhere?

Ans. To make the silk adhere to the metal.

X Q. 81. My question was not whether you considered it sufficient to make it adhere, but whether that you can swear positively that the dextrine solution did effectually cause such adherence as to retain the braiding firmly cemented to the metal through the various bendings to which such crimpers are put in practical use?

Ans. I tried them to see that that cementing held them firm to the copper, and found it to be satisfactory.

X Q. 82. Did you ever apply the crimpers in use, or see them in use without the end clips, and, if so, did you notice whether or not the braiding still adhered to the metal at the ends?

Ans. I never saw any in use without the tip on.

X Q. 83. It has been said that "it is a well-known fact in the arts that it is difficult or almost impossible to secure an absorbent material to a non-absorbent material by the use of an adhesive, and that this difficulty is of course increased when the two bodies or materials are to be repeatedly flexed or bent after being cemented together. A critical study of a hair-crimper will show that as a matter of fact, the covering when cemented throughout its length to the core of the crimper, is prevented from fraying out from the adhesion of the strands together, rather than their adhesion to the metallic core." As a practical man, familiar with the subject, do you agree with the foregoing statements?

145 Ans. Well, in my opinion, one adhered at the ends would stand as much wringing and twisting and rough usage as one cemented the entire length.

(Answer objected to as not responsive to the question.)

X Q. 84. Question repeated.

Ans. I should consider that as correct.

X Q. 85. Then I understand that you consider that the adhesion is principally between the different strands, instead of between the braided covering and the metal core?

Ans. When it is freshly put on, I consider that it adheres to the core.

X Q. 86. Please examine the crimpers marked Defendants' Exhibit No. 1, and state whether they are the same kind of crimpers, or the same crimper such as Mr. Blakesley showed you, and explained their construction to you, when you were at his shop; on one of the two occasions in 1876, when you were at his shop.

Ans. Those look like the goods he showed me.

X Q. 87. Then you do not recognize any difference between this exhibit and the ones he showed you on that occasion?

Ans. I don't, unless it is in one particular, and that is that I think those that he showed me were without tips. Aside from that, they look to be the same thing.

X Q. 88. That is, they were not finished?

Ans. Any farther than that. I am quite positive he showed me the crimpers without tips.

146 X Q. 89. Please describe the "spuds" which you used in making the garters?

Ans. They were stamped out of sheet metal with a rounding head on each end, with two projecting points on each side at the middle, between which the cutting was done. The wire of the coil was bent around the heads, and was fastened with a pair of pliers.

X Q. 90. The braiding was continuous over the wire and the spuds, and the braiding and the spuds at the middle were severed by shears, and the clasps afterwards attached to the spuds over the surface of the cut end of the braid?

Ans. That is the way it was done.

X Q. 91. What function did the dextrine perform after the clasps were applied and swaged on?

Ans. It was all covered with metal. The whole spud was covered by the clasp so that it was all out of sight. What it done when it was under I couldn't tell you.

X Q. 92. What use was the dextrine except in the cutting and the applying of the clasps?

Ans. I don't consider it was any in that place.

(Counsel for complainants calls for the production of one of these garters.)

Redirect examination:

R. D. Q. 93. Do or do not you remember that before you left this house yesterday you told me (Mr. Seymour) in conversation
147 that you saw in Mr. Blakesley's shop in '76 a bare or naked hair-crimper strip passed through a pan of dextrine and then through a braider, to receive a covering of silk; and do or do you not remember that you told me that you would explain that to me again in the evening?

(Objected to as leading and suggestive.)

Ans. I do recollect telling you so.

R. D. Q. 94. Did you explain that to me later in the evening?

(Same objection.)

Ans. I did.

R. D. Q. 95. Was Mr. Blakesley present at the time?

Ans. He was.

R. D. Q. 96. Have you had, or not, any conversation with Mr. Blakesley since you left this house yesterday evening at which I (Mr. Seymour) was not present?

Ans. I have not.

R. D. Q. 97. Please state whether or not in any intercourse that you may have had with Mr. Blakesley since yesterday new facts have been discussed, that is, facts which you have not discussed with Mr. Blakesley before?

Ans. No; there have not been any.

R. D. Q. 98. Please state, if you can, where the first talk Mr. Blakesley and I had with you took place?

Ans. On the corner by the Gridley house.

R. D. Q. 99. Please state whether or not you were asked at this time if you knew how Mr. Blakesley made hair-crimpers in 1876?

148 Ans. I think that was the talk we had.

R. D. Q. 100. What was our conversation at that time?

Ans. It was with regard to the way Mr. Blakesley was making crimpers in the spring or early summer of 1876.

R. D. Q. 101. Did you have anything to say on the subject, and if so, what?

Ans. I explained to them as I have in my evidence before to-day, the same regarding the bare metal going through the dextrine and passing up through and being braided.

R. D. Q. 102. About what time in the year was this?

Ans. It must have been in April of this year.

R. D. Q. 103. Do you remember about what you were called upon to give in your affidavit, that is the substance of it?

Ans. I don't any more than to explain the process I saw him going through with, in the manufacture of those crimps.

R. D. Q. 104. Do you recall or not whether you stated in your affidavit that you visited Mr. Blakesley's shop in 1876, and actually saw him passing a strip braided over with cotton through a pan of dextrine and then through a braider applying a silk covering?

(Question objected to as leading and directly suggestive and the witness having in his last preceding answer stated that he don't recollect any more than that he saw the process.)

149 Ans. I have no recollection of the question being asked me in that way, for the reason that I never saw him to my knowledge putting on the double cover.

R. D. Q. 105. Do you remember what called you to the shop at the time you saw the naked strip passing through the dextrine?

Ans. It was for the object of settling up with Mr. Blakesley the remainder of the things that were left unfinished.

R. D. Q. 106. Did or did you not receive any money from Mr. Blakesley?

(Objected to as immaterial.)

Ans. I did receive money at that time.

R. D. Q. 107. Can you or not tell about when you received this money?

Ans. It was somewhere in the month of May.

R. D. Q. 108. Do you know how these hair-crimpers were used?

Ans. The hair was wound around the crimper till the crimper was close to the head. The ends were then bent over to hold it in position.

R. D. Q. 109. To what extent were the ends of the crimpers in contact with the hair?

Ans. Well, I think the ends nearly or quite met or were lapped over, I couldn't say particularly as to that.

R. D. Q. 110. Would the ends of the crimpers be affected if untrimmed by the hair if damp or not?

Ans. I couldn't say I never wore any; being on the outside they would be less liable to dampen.

150 R. D. Q. 111. In your opinion would the ends of the crimpers become sticky or not from damp hair?

(Question objected to as not redirect, as immaterial for the reason that the witness has had no practical experience in wearing the crimpers and consequently his opinion is worth no more than any other person without experience.)

Ans. I have no way to ascertain whether they would or not, it would depend in all probability on how damp the hair was.

R. D. Q. 112. Are you interested in this case?

Ans. None whatever.

Recross-examination:

Re-X 113. I suppose you mean that you have no pecuniary interest in the result of this suit; do you mean that?

Ans. I have none.

JULIUS WRIGHT.

Subscribed and sworn to before me—

JOHN P. BARTLETT,
Notary Public.

Adjourned to Thursday, October 30th, 1884, at 9.30 a. m.

JOHN P. BARTLETT,
Notary Public.

151 BRISTOL, CONN., THURSDAY, *October* 30, 1884.

Present: Counsel as before.

ELIZABETH M. SIKES, a witness produced by defendants, deposes and says as follows, in answer to questions proposed by GEO. D. SEYMOUR, Esq., counsel for defendants:

Q. 1. What is your name, age, residence, and occupation?

Ans. Elizabeth M. Sikes; am of mature age; reside in Bristol, Conn.; am a milliner by occupation.

Q. 2. The witness will please examine Defendants' Exhibit No. 1, and state if she recognizes the article.

Ans. Yes, I recognize it as an article that I kept for sale and used myself.

Q. 3. About when did you first begin the use and sale of such a crimper?

Ans. Some time prior to September, 1876.

Q. 4. Were the crimpers worn and sold by you provided with trimmings or tips?

Ans. I had them both ways. I had them with the trimmings and without.

Q. 5. How were the untrimmed crimpers sold?

Ans. I had the untrimmed ones in bulk; sold them by the dozen.

Q. 6. To what extent did you sell the untrimmed crimpers in 1876?

152 Ans. Well, I couldn't tell the exact quantity. I sold a good many of them, just how many I can't say; quite a number.

Q. 7. For your own use, which did you prefer, the trimmed or the untrimmed crimper?

Ans. I don't know that I had any preference. The untrimmed crimper answered just as well and I usually used that.

Q. 8. About how long did you wear one of the untrimmed crimpers?

Ans. I wore them several weeks; wore them until they were so badly soiled that they were unfit for use.

Q. 9. Had the wearing of the untrimmed crimper any effect upon its braided covering?

Ans. Not any unless it frayed a trifle at the ends.

Q. 10. Were the crimpers worn and sold by you in this year of 1876, provided with single or double coverings?

Ans. Double coverings.

Q. 11. Did the covering of the untrimmed crimper fray sufficiently to interfere with its use?

(Objected to by counsel for complainants as leading.)

Ans. It did not.

Q. 12. What business were you in in this year of 1876?

Ans. Millinery and fancy goods.

Q. 13. Where did you sell the trimmed and untrimmed crimpers as referred to?

Ans. I sold them at my store.

153 Cross-examination by JOSHUA PUSEY, Esq., counsel for complainants:

X Q. 14. How came you to get these crimpers, and whom did you pay for them?

Ans. I got them of Mr. Blakesley, and paid him for them.

Redirect examination:

R. D. Q. 15. Will you please give Mr. Blakesley's full name?

Ans. Gilbert H. Blakesley.

ELIZABETH M. SIKES.

Subscribed and sworn to before me—

JOHN P. BARTLETT,
Notary Public.

Deposition of Gilbert H. Blakesley.

Q. 1. What is your name, age, residence and occupation?

Ans. Gilbert H. Blakesley; am forty-four years of age; reside in Bristol, Connecticut; am a manufacturer of clocks and novelties.

Q. 2. How long have you been engaged as an inventor and manufacturer?

Ans. About twenty years.

Q. 3. What were you doing in the year 1875?

Ans. Manufacturing spiral spring silk-covered garters.

154 Q. 4. Were you associated with any one in making the article you have mentioned?

Ans. With Mr. Julius Wright, of Bristol, Conn.

Q. 5. Describe, briefly, how the article was made?

Ans. We first wound wire into a spiral spring, in lengths of from ten to thirteen feet. We cut these lengths into suitable lengths for the respective sizes of garters which we desired to make. The lengths were connected together by a small brass bar, or what we termed a "spud." Each end of the spud was provided with a small circular head enlarged on the end. These heads were inserted into the ends of the lengths of spiral coil to connect them, and two or three of the coils at the end of the spring were closed around the narrow place in the bar, making a connected strand of coiled wire. They were then placed in a braider and braided while stretched to a proper degree. Then they were cemented and taken from the reel. The covering at these bar places was daubed with a brush, cementing the thread to the spud or bar, by the use of dextrine. They were then cut in two at the center of the bar. Then they were trimmed with suitable clasps for engaging the garter around the limb, and were packed and shipped to market.

Q. 6. How long did you continue making the article which you have described with Mr. Wright?

Ans. Until some time in July, 1875.

Q. 7. Was the manufacture of the garters continued after this date?

Ans. It was.

155 Q. 8. By whom?

Ans. By myself.

Q. 9. Do you know what Mr. Wright did after this?

Ans. He commenced manufacturing the hair-crimper.

Q. 10. When did he begin the manufacture of this crimper?

Ans. A very short time after I bought his interest in the garter business in 1875.

Q. 11. Where did he make the hair-crimpers?

Ans. In the same room in which I carried on my business, using one of the braiders which I used in the manufacture of garters; one of my braiders.

Q. 12. Do you know how his hair-crimpers were made? And if so, please describe the process briefly.

Ans. I do. Narrow strips of metal, copper, were conducted through a braiding machine, which was provided with silk, receiving a scarlet silk cover. They were cut into lengths of several feet after being braided. A board of suitable length was spaced off with marks as a g*ua*ge for the lengths into which the strip was to be cut. The strips would be laid on this board and a cement, made of dextrine, was daubed onto the silk cover on both sides, saturating the covering thoroughly at the specified points, about two and a half inches apart. They were then cut at these points, and provided with a silver-plated clip at each end, packed in slide-boxes, holding one dozen each, twelve of these placed in a large box, and sent to market.

Q. 13. About how long did Mr. Wright make the article which you have described?

156 Ans. Well, I know the quantity he made and think it might have been a month or so in which he was so occupied.

Q. 14. Did any one continue with the crimper business?

Ans. I continued it, some time after.

Q. 15. About when did you take up the business?

Ans. In the spring of 1876.

Q. 16. How did you first make the crimper?

Ans. By the same process that Mr. Wright had followed.

Q. 17. Did you ever change that process and, if so, how?

Ans. I did, I directed a plain strip of brass through a dish of dextrine provided with a roller journaled in the dish, thereby to immerse the strip, passing it to the braider while wet with cement to which the silk cover adhered throughout the length of the strip. I then cut them up at any point I desired.

Q. 18. State, as nearly as you can, how many crimpers made by this bare-metal process, were made and sold.

Ans. I should judge fifty gross or more—from five to eight hundred boxes.

Q. 19. Did you make any crimpers after this and if so, how were they made?

Ans. I made them with a double covering. I first covered the plain strip of metal with cotton, the strip being dry. I then conducted the cotton-braided strip through the silk braider, applying a cover of silk. The cotton-covered strip was conducted through a dish of dextrine under a roller journaled in the dish, thence 157 to a pair of stripping rolls situated between the dish and the braider. This dextrine saturating the cotton thoroughly throughout its length, the stripping rolls depriving it of the surplus cement leaving it wet and thoroughly saturated and wet enough to receive the silk covering and cement it, so that all three—core, cotton cover and silk cover, were cemented together. They were cut up and packed as before.

Q. 20. In what manner was the cotton covering applied to the dry strip?

Ans. In the same method of the silk cover, except that the strands did not make as compact a braid, but left the meshes more open.

Q. 21. What was gained by applying the cotton covering in this way, that is with an open mesh?

Ans. It would allow the cement to circulate more freely through the braided covering, and would not use the same quantity of cotton to the gross.

Q. 22. About what time were these changes from Mr. Wright's process, which you began with, then to the bare metal process, and then to the double-cover process made?

Ans. During the spring and early summer of 1876.

Q. 23. Who attended to the making of the crimpers chiefly at this time?

Ans. Myself.

Q. 24. Had you any reason for giving the matter your personal attention?

Ans. Because that I had usually done so in making new goods until I had the trade learned, as I call it.

Q. 25. How did you prepare the dextrine?

158 Ans. I sometimes dissolved it in hot water, down-stairs in the dip-room, being more convenient to find hot water there; sometimes I prepared it with cold water.

Q. 26. At what consistency did you use the dextrine?

Ans. I had no absolute formula, but tested it by dipping my fingers in it, and feeling that it was sticky.

Q. 27. How were these crimpers made by you, generally put on the market?

Ans. As to the manner of boxing, there were twelve in a box, and twelve boxes in a larger box.

Q. 28. Were they in any way trimmed or finished?

Ans. The majority of them had silver-plated clips or tips on the ends. Some of them were sold without this ornament.

Q. 29. Why did you apply these clips to any of the crimpers?

Ans. I followed Mr. Wright's plan, having taken them up from him. And Mr. Wright, when his crimpers were first talked of with me, at the time of his commencement, thought that it would be a very attractive feature to make the goods have a nice appearance, being covered with silk, and in order to make the article have the appearance of being nice goods, and that they might retail at twenty-five cents a box. That was the intention when they were first got out.

Q. 30. Were they necessary to the usefulness of those crimpers made by you, by the bare-metal bath, or the cotton-covered bath process?

Ans. They were not.

159 Q. 31. What was the characteristic of crimpers made by those two processes?

Ans. Those which were made by the brush process would be stained or discolored at the ends by the cement. The silk would not return to its natural color when dry. Another characteristic was that they were continuously cemented to the core.

Q. 32. Do you mean crimpers made by the brush process?

Ans. I do not. They were not continuously cemented.

Q. 33. I will repeat the question; what was the characteristic of crimpers made by the bare-metal bath and cotton-covered bath process?

Ans. The cotton-covered process made a double covering.

Q. 34. What was the characteristic as to the cementing of crimpers made by the bare-metal bath and cotton-covered bath processes?

Ans. In the bare-metal bath, the silk would be discolored to some extent. I don't think of any other particular feature. The outer covering would be cemented to the cotton, and the cotton to the metal; there was a combination of the three.

Q. 35. In what manner was the covering or coverings secured to the core by these two processes?

Ans. In the first process, the dextrine would be transmitted up to the braider to the point of contact with the yarn as being applied, and then passed through the feed-rolls above, and thence to
160 the reel. In the cotton-covered process, the bare strip was
not directed through the dish of cement while receiving the cotton covering, but while receiving the silk cover it was directed through a dish of dextrine, saturating the cover thoroughly, thence through the stripping roller to the braider, receiving the silk cover. They were thicker and more bulky.

Q. 36. In finished crimpers made by the bare-metal bath and cotton-covered bath processes, what was the nature of the union between the covering and the core?

Ans. It adhered to the core. I don't know as I understand the nature of the adhesion.

Q. 37. What was the difference as to the cementing between the brush and the bath processes?

Ans. The brush process cemented the cover to the core at intervals. The bath processes cemented it continuously throughout its length, so that it might be cut up at any desired point without fraying.

Q. 38. What, then, was the characteristic as to cementing of finished crimpers made by the bare-metal bath and cotton-covered bath processes?

Ans. In the brush process the article is cemented by the cement being daubed on and striking through to the core, slightly discoloring the silk at the ends.

Q. 39. Were or were not the cover or coverings of crimpers made by the bath processes cemented continuously to the cores of the crimpers?

Ans. They were.

Q. 40. What was the characteristic as to cementing of finished crimpers made by the bath processes?

161 Ans. They were continuously cemented throughout their entire length.

Q. 41. Can you swear positively that crimpers made by the bath processes had their coverings cemented to the core?

Ans. I can.

Q. 42. How are you enabled to make this statement?

Ans. In putting on clips, which I often done, if the clip was not sufficiently opened to go onto the crimper readily, the threads of the cover would adhere to the core.

Q. 43. Did you ever or not put on the market or sell any of the doubled-covered crimpers which did not have their inner coverings cemented to their cores?

Ans. I did not.

Q. 44. Please examine one of the crimpers marked "Defendants' Exhibit, No. 1, J. P. B., N. P.," and state if you recognize it as being like those made and sold by you in 1876?

Ans. Yes; I should recognize it as one like those made by me.

Q. 45. Please examine one of the crimpers and see if you find the inner covering to be now cemented to the core?

Ans. I find it moves a little. I shouldn't think it was sealed. The articles that I made in '76, I should judge that the cement had become thoroughly dried and lost its adhesive powers; had reverted to its powdered state.

Q. 46. From an examination of the inner covering, do you find that it contains powdered dextrine?

162 Ans. It has that appearance.

Q. 47. From your knowledge of dextrine, should you expect that in this application of it, it would in time lose its adhesive properties?

Ans. I should expect that it would.

Q. 48. Please examine one of the crimpers from Complainants' Exhibit, A, and see if you find anything besides the cement for holding the covering to the core?

Ans. I do. I find that the thread is imbedded in the lead.

Q. 49. To what extent should you say the imbedding of the thread in the core assists the cement in holding the covering in place?

Ans. I think it is largely due to the indentations in the lead.

The thread being so buried as to cause it to adhere full as much as the cement.

Q. 50. Please examine the complainants' crimper and state how, in your opinion, it compares as to cementing alone, with the continuously cemented crimper which you made in 1876?

Ans. I don't think it any more strongly adheres than in mine.

Q. 51. Please examine the complainants' crimper and state whether in your opinion the covering would become loosened upon the core by the manipulations which the crimper receives in use.

Ans. It would.

Q. 52. How long have you been acquainted, altogether, with a hair-crimper of the type, or essentially like the complainants' exhibit which you have examined?

163 Ans. About nine years.

The defendants introduce in evidence a package of complainants' crimpers selected from Complainants' Exhibit A, and the same is marked "Defendants' Exhibit, No. 4, J. P. B., N. P."

Q. 53. The witness will examine the first claim of the complainants' patent and state how the article covered by that claim compares with the article made by him in 1876.

Ans. I consider the crimper that I then made as identical with the article there described.

Q. 54. Who invented the continuously gummed article which you made in 1876?

Ans. Myself.

Q. 55. How would you compare the invention disclosed in the complainants' patent with such invention of yours in 1876?

Ans. I should compare it as being identical.

Q. 56. What conversation have you had with Howard M. Giles, one of the defendants in this case, respecting your rights in the premises, against those of other parties?

(Objected to as immaterial.)

Ans. The first time I ever called on the gentlemen, I stated that I had a patent applied for, and also that I had made the
164 goods of a strip of metal covered more than two years prior to the date of the application of the Madame Louise crimper patent. That was the sum and substance of my remarks as to what I considered my rights in the matter.

Q. 57. Did you or not ever state to Mr. Giles, prior to the institution of this suit, that you had a patent on crimpers antedating the Madame Louise patent by two years?

(Objected to as immaterial.)

Ans. I did not.

Q. 58. Can you produce an apparatus arranged essentially as the apparatus used by you in 1876 for your bare-strip process was arranged?

Ans. I can and do.

(Apparatus introduced in evidence, and marked "Defendants' Exhibit, No. 5, J. P. B., N. P.")

Q. 59. Were any parts of Exhibit No. 5, now produced by you, in use by you for making hair-crimpers in 1876?

Ans. The braider of exhibit was, and the old reel. The pan is new. The silk is some I had left when I sold out the garter business, and the stock is some I had left over.

Cross-examination:

165 X Q. 60. Did you consider the cementing of the braided covering to the core or cores an essential feature of the crimpers made by you as alleged in 1876 and subsequently?

Ans. I did.

X Q. 61. You are the manufacturer, I believe, of the crimpers sold by the defendants upon which this suit was brought?

(Objected to as not being in the line of cross-examination of testimony already taken.)

Ans. I am.

X Q. 62. Do you consider the cementing of the paper strip to the metallic core an essential feature of these last-mentioned crimpers?

Ans. I cement the two strips of paper together. The strip of metal is about one-third the width of the paper.

X Q. 63. You are the patentee of these crimpers, are you not?

Ans. I am.

X Q. 64. Do you remember the date of your patent?

Ans. I think it is April 29, 1884.

X Q. 65. Do you consider the use of the cement for joining the strips of paper together, as described in answer to X Q. 62, an essential feature of your said patented invention?

Ans. I don't consider it as a part of the invention in the manufacture of this article.

X Q. 66. Is it not essential in the production of the finished article?

166 Ans. It is.

X Q. 67. Was not the object in daubing the braided covering with dextrine in the manufacture of the garters referred to in the early part of your testimony-in-chief to stiffen or size the fibres of braiding so that the dividing knife would cut the braiding more readily?

Ans. It was not the only object.

X Q. 68. What other object had you?

Ans. The braiding, by handling, would slip along on the wire, and it occurred in some instances where, before it had been daubed, it slipped along on the bar, (the connecting link between the coils of spiral spring). After being daubed that would not happen.

X Q. 69. The dextrine served no useful purpose, did it, in the finished garter?

Ans. I don't think it did in the completed garter.

X Q. 70. You daubed the dextrine on strips of braided metal, at intervals, in the manufacture of the first crimpers made by you. Was not the object of using the dextrine the same as the like use with the garters?

Ans. It was not in all respects.

X Q. 71. Wherein was there any essential or important difference?

Ans. There was. One feature was in cutting, so that they would cut clean without fraying at the ends. The cover would also be so cemented to the core that it would not readily in the process of putting on the clips push back or slip on the core. In the garter it was used for one of the principal reasons to prevent the cover from slipping lengthwise on the bar.

167 X Q. 72. The daubing of the braided strip with the brush you found to be a rather slow and unsatisfactory process for the purposes mentioned, did you not?

Ans. I did.

X Q. 73. You then, as I understand, in order to accomplish the same purposes more speedily, passed the metallic strip through a dextrine bath before braiding; is that the case?

Ans. It is.

X Q. 74. Did you consider the use of the dextrine an essential part of the process of manufacturing your garters?

Ans. I did.

X Q. 75. Just as essential, I presume, as in the process of manufacturing the crimpers?

Ans. The same.

X Q. 76. You and Julius Wright took out a patent for this garter. Do you recollect about the date of it?

Ans. I think it was in the early part of 1875. By looking at the patent I find that the application was made in February, 1875, and that the patent is dated October 26, 1875.

X Q. 77. Referring now to the double-covered crimper referred to by you in your testimony-in-chief, what kind of cotton yarn did you use for the first coat?

Ans. A two-stranded yarn, similar to that which is used in the manufacture of suspender webbing.

X Q. 78. Did you use it in the same condition that you got it from the manufacturer?

168 Ans. I bought it from the maker in skeins. I ran it doubly onto spools.

Y Q. 79. Is the inner braided coat of one of your crimpers of Defendants' Exhibit, No. 1, a fair sample of the character of the cotton yarn and manner of braiding of that coat?

Ans. I think it is, with the exception of the cement having become powdered.

X Q. 80. Were the cotton braiding and the silk braiding put on with the same machines?

Ans. They were; with the same kind of machines.

X Q. 81. Did you make any change in the braiding machines themselves, or any part of them, after putting on the cotton coat, in order to properly braid on the silk covering?

Ans. No; they did not require it.

X Q. 82. That is to say the machines could be used interchangeably?

Ans. The silk was considerably finer than the cotton, and I used more strands, and also the color of the silk approximated that of the cotton, so that the brass would not show through the braid.

X Q. 83. Was that the only difference?

Ans. The angle or pitch of the braid would be at a different point slightly; the cotton being put on and the silk going on with the same feed-rolls, the pitch or angle where the silk threads engaged on the crimper would be slightly below that while being covered with the cotton.

169 X Q. 84. In your patent for hair-crimper of April 29, 1884, you say: "Heretofore hair-crimpers have been made by braiding a long strip of thinly rolled lead, and cutting the strips into suitable lengths to form crimpers." You also say: "Further, the ends of the braid being unprotected, are liable to unravel and impair the value and appearance of the article." What particular hair-crimper did you refer to in these statements?

Ans. Well, I suppose the facts are that in applying for the patent I sent the attorney the goods—my own and the lead crimper—and did not draw the specification myself.

X Q. 86. You swore to the specification, did you not?

Ans. I swore to it as being my invention. I understood it that way, when I swore to it.

X Q. 87. Did you not explain to your attorney the nature of the points of invention and the comparative advantages of your crimper before the application for a patent was made?

Ans. I suppose I did.

X Q. 88. You are the same Gilbert H. Blakesley who made an affidavit on the motion for preliminary injunction in this suit, are you not?

Ans. I am.

X Q. 89. Do you adhere now to all the statements which you made in that affidavit?

Ans. I made them to my best knowledge and belief.

X Q. 90. Were the crimpers that you made such as Defendants' Exhibit No. 1, put up in boxes such as said exhibit is now contained in?

Ans. They were.

170 Redirect examination:

R. D. Q. 91. Do you know*n* whether Mr. Wright's crimpers, that is those gummed at the ends only, were ever worn without the trimmings?

Ans. I do not; those that Mr. Wright particularly made.

R. D. Q. 92. Do you know whether any crimpers so made were worn?

Ans. I do.

R. D. Q. 93. Do you know whether they were efficient in use?

Ans. They were.

R. D. Q. 94. You stated that the cotton covering of the double-covered crimpers was put on in an open mesh. What effect, if any, did the subsequent immersion of the strip in the dextrine and its passage between the stripper rolls and feed-rolls have upon the open mesh of the covering?

Ans. Well, it wasn't a very open mesh. It was a mesh through which the brass could be seen. It would perhaps allow the cement to circulate more freely to the core.

R. D. Q. 95. What effect did the subsequent immersion of the strip and its compression between the stripping and feed rolls have upon the mesh?

Ans. It would mat or compress the yarn to the core and assist the adhesion.

R. D. Q. 96. Explain what you mean by matting the yarn.

Ans. Crushing it.

171 R. D. Q. 97. Had you begun the practical manufacture of garters at the time your patent for a garter was applied for?

Ans. I had not.

Examination closed.

GILBERT H. BLAKESLEY.

Subscribed and sworn to before me—

JOHN P. BARTLETT,
Notary Public.

172 Circuit Court of the United States, Southern District of New York.

CHRISTIAN W. HERSHEY *et al.*
vs.
HOWARD M. GILES *et al.*
} In Equity. No. —.

I, John P. Bartlett, a notary public duly appointed for the State of Connecticut, being agreed upon by counsel for the respective parties hereto, do hereby certify that on the several days in the annexed depositions I was attended at Bristol, Conn., by the counsel and witnesses aforesaid; that the said witnesses were each duly sworn and examined, and the depositions were reduced to writing and read to the witnesses and by them subscribed in my presence, and that exhibits were introduced in evidence, as appears of record.

JOHN P. BARTLETT,
Notary Public.

173 HERSHEY *et al.*
v.
GILES *et al.*

WALLACE, *J.:*

The defense of prior public use is relied upon to defeat the complainants' patent. The case turns on the question whether the crimpers made by Blakeslee in 1876 were made with the braided covering firmly cemented to the core throughout its entire length.

If they were not the defense fails, and if there is any fair doubt upon this point the presumption of novelty arising from the grant of the letters patent is not overthrown.

Blakeslee immersed his braided covering in dextrine, not in order to cement it to the core, but to enable the material to be cut without fraying out. The adhesion of the strands together, and not their adhesion to the core, was the object he had in view. It was undesirable to saturate the covering very thoroughly because he adopted means to remove any excess of dextrine. The exhibits of his crimpers produced show that there is no appreciable adhesion between the covering and the core. None of the witnesses had any occasion to notice particularly whether there was any adhesion between the core and covering, and their testimony in this behalf is merely the result of their impressions.

174 The theory that Blakeslee made crimpers also by immersing a strip of metal in dextrine and then covering it, as testified to by him and by Wright, is refuted by the omission of both Blakeslee & Wright to mention the fact in their affidavits used to oppose a motion for a preliminary injunction in this case. Those affidavits purport to give a full history of the manufacture of crimpers by Blakeslee, and the omission to state what was so important, if true, is significant. No explanation has been given of the failure to state the facts.

Sufficient doubt is suggested by the proofs to overthrow the defense.

A decree is ordered for complainants for an injunction and an accounting respecting infringement of the first claim of the patent.

Endorsed: Hershey *et al.* *v.* Giles *et al.* Opinion. Wallace, J. U. S. circuit court. Filed Apr. 10, 1885. Timothy Griffith, clerk.

175 Circuit Court of the United States, Southern District of New York.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER *vs.* HOWARD M. GILES, ELBRIDGE G. BROWN, Robert M. Cugle, and Isaac P. Smith, Trading as Noyes, Smith & Co.	In Equity. No. 3015.

And now, to wit, April 17th, 1885, this cause having come on to be heard at this term of the court on pleadings and proofs, and having been argued by Joshua Pusey, Esq., of counsel for complainants, and George D. Seymour, Esq., of counsel for defendants, and the same having been duly considered by the court, it is ordered, adjudged, and decreed as follows:

That the letters patent of the United States No. 218,300, dated August 5th, 1879, issued to Christian H. Hershey and John L. Heysinger, assignees, &c., for improvement in hair-crimpers are good and valid.

That William Mills and Christian H. Hershey were the first, original, and joint inventors of the invention therein described and claimed.

That the defendants, Howard M. Giles, Elbridge G. Brown, Robert M. Cugle, and Isaac P. Smith, trading as Noyes, Smith & Company, have infringed said letters patent by selling hair-crimpers containing or embodying the invention described in said 176 letters patent and claimed and secured in and by the first claim thereof.

That the complainants are the sole and exclusive owners of said letters patent No. —, and that they are entitled to a perpetual injunction according to the prayer of the bill restraining the defendants, Howard M. Giles, Elbridge G. Brown, Robert M. Cugle, and Isaac P. Smith, their servants, agents, and workmen, from making, using, and selling or causing to be made, used, or sold hair-crimpers embracing or embodying the invention described in said letters patent and claimed in and by the first claim thereof (which claim only was considered by the court), and it is ordered that a writ of injunction issue against the said defendants accordingly.

And that the complainants do recover of the defendants the profits and gains made and received by them in consequence of the infringement and violation of the exclusive rights of the complainants under and by virtue of said letters patent No. 218,300, together with the damages the said complainants have sustained thereby, and together with the costs of the cause.

And the matter is referred to Samuel A. Blatchford, Esq., of the city of New York, as master *pro hac vice* to compute, ascertain, and assess the said gains and profits and damages to the said complainants, and to take the proofs thereof and report the same to the court, with leave to the complainants to move the court upon 177 notice to increase said profits, gains, and damages that may be assessed and reported by the master in accordance with law.

WM. J. WALLACE.

Endorsed: C. C. U. S., S. D. of New York. No. 3015. In equity. Hershey *et al.* *vs.* Giles *et al.* Decree on final hearing. U. S. circuit court. Filed Apr. 17, 1885. Timothy Griffith, clerk.

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178 In the United States Circuit Court, Southern District of New York.

Hershey *et al.*
vs. } In Equity.
Giles *et al.*

Notice of Motion.

Sir: Please take notice that on Friday, May 29th, 1885, at the opening of court on that day, or as soon thereafter as counsel can be heard, I shall, upon the annexed affidavits of Fred. B. Mitchell, Mrs. George A. Gowdy, Timothy B. Robinson, Frank A. Hubbell, Rufus Sikes, George Lewis, Gilbert H. Blakesley, and George D. Seymour, and upon reference to the record and proceedings herein, move the court, at the court-rooms, New York city, N. Y., for an order to reopen the case for the admission of additional testimony bearing upon the point of previous public use, knowledge, and sale of complainants' patented crimpers and for a rehearing, and for such other and further relief as the court may direct.

WORTH OSGOOD,
Defendants' Solicitor.

New York, May 27, 1885.

To Francis Forbes, Esq., sol. for compl't-, #137 Broadway, New York city, N. Y.

179 In the United States Circuit Court, Southern District of New York.

HERSHEY *et al.*
vs.
GILES *et al.*
} In Equity.

STATE OF CONNECTICUT,
County of Hartford,
} *ss:*

Fred. B. Mitchell, of New Britain, in the county of Hartford and State of Connecticut, being duly sworn, deposes and says:

In 1876 I worked at Bristol, Connecticut, for Gilbert H. Blakesley, at that time making a hair-crimper, consisting of a strip of annealed brass, provided with a woven covering of silk and having clips on its ends.

In the spring or early summer of this year I saw such a hair-crimper made by passing a long bare strip of the metal through a pan of some liquid adhesive material and then through a braider, which applied a covering of silk to the strip.

I distinctly remember seeing the bare, uncovered strip passing through the pan containing the adhesive material and then upward through the braider which put on the covering.

A part of my work was to put on the clips, which were first pinched on with pli*a*rs and then pricked and clinched in a machine which I operated.

180 In doing this I had occasion to particularly and repeatedly notice that the coverings of the crimpers were adhered or cemented to their cores.

I observed that the threads of the covering were stuck to the metal when I replaced such clips as were detached from the crimpers in handling them.

Such clips having been pinched onto the crimpers with pli*a*rs were so far closed together that they could not readily be replaced without engaging with and chafing the silk which I observed clung to the metal.

FRED. B. MITCHELL.

Sworn to and subscribed before me this 5th day of May, 1885.

[SEAL.] GEORGE D. SEYMOUR,
Notary Public.

STATE OF CONNECTICUT, } *ss:*
County of New Haven, }

This deponent, Fred. B. Mitchell, being duly and again sworn, deposes and says that at the time of making the above affidavit he had no knowledge whatsoever of the result of the trial.

F. B. MITCHELL.

Sworn to and subscribed before me this twenty-fifth day of May, A. D. 1885.

GEO. D. SEYMOUR,
[SEAL.] *Notary Public.*

181 In the United States Circuit Court for the Southern District of New York.

HERSHEY *et al.*
vs. } In Equity.
GILES *et al.*

STATE OF CONNECTICUT, } *ss:*
County of Hartford, }

George Lewis, of Bristol, in the county of Hartford and State of Connecticut, being duly sworn, deposes and says:

I am familiar with a hair-crimper made at Bristol, Conn., in 1876, and consisting of a strip of soft metal having a braided covering cemented directly to it.

It was made by applying a cement directly to and throughout the length of a long uncovered strip of the metal and then passing the strip through a braider, applying a covering of silk, which was cemented to the strip. At such time I saw the braider with a pan for the cementing solution located beneath it. The pan was provided with a roll for the strip to pass under that it might be immersed in the solution.

After being covered the long strips were cut up into crimper lengths.

The covering of each crimper was cemented or adhered to its metal strip.

182 I found this to be the case by picking the covering apart, when I found that the strands were cemented to the metal.

All the incidents mentioned above occurred in 1876.

GEO. LEWIS.

Sworn to and subscribed before me this 7th day of May, 1885.

[SEAL.] CHARLES S. TREADWAY,
Notary Public.

STATE OF CONNECTICUT, } ss:
County of Hartford, }

This deponent, Geo. Lewis, being again sworn, deposes and says that his statements herein were first made prior to any knowledge on his part of the result of the suit.

GEO. LEWIS.

Sworn to and subscribed before me this twenty-fifth day of May, D. 1885.

[SEAL.] GEO. D. SEYMOUR,
Notary Public.

In the United States Circuit Court for the Southern District of New York.

HERSHEY *et al.*
vs. } In Equity.
GILES *et al.*

STATE OF CONNECTICUT, } ss:
County of Hartford, }

Frank A. Hubbell, of Bristol, in the county of Hartford and State of Connecticut, being duly sworn, deposes and says:

In 1876 I saw at Bristol, Conn., a hair-crimper made by passing a long bare strip of soft metal through a thick cement, yellow in color, contained in a pan provided with a roller under which the strip ran and then up through a braider, applying a covering of silk to the strip.

I distinctly remember the pan, the roller journalled in it, the thick, yellowish cement in the pan, and the passing of the bare metal strip into the pan through the cement under the roller and then up into the braider, which put on the silk.

I saw the cement prepared, which was done by mixing and stirring a powdered substance into water until a sticky and quite thick solution was made.

It was semi-transparent, I should say, and of a bright color—an amber color.

184 It was sometimes spoken of in the shop as "stickibus."

All this occurred in 1876.

FRANK A. HUBBELL.

Sworn to and subscribed this sixth day of May, A. D. 1885.

[SEAL.] GEO. D. SEYMOUR,
Notary Public.

STATE OF CONNECTICUT, } ss:
County of Hartford, }

This deponent, Frank A. Hubbell, being again sworn, deposes and says that his statements herein were first made prior to any knowledge on his part of the result of the suit.

FRANK A. HUBBELL.

Sworn to and subscribed before me this twenty-fifth day of May, A. D. 1885.

[SEAL.] GEO. D. SEYMOUR,
Notary Public.

185 In the United States Circuit Court for the Southern Distric
of New York.

HERSHEY *et al.*
vs. } In Equity.
GILES *et al.*

STATE OF CONNECTICUT, } *ss*:
County of Hartford,

Timothy B. Robinson, of Bristol, in the county of Hartford a State of Connecticut, being duly sworn, deposes and says:

In 1876 I saw a hair-crimper made at Bristol, Conn., by passin a long bare strip of metal through a thick and sticky solution of dextrine contained in a pan and then through a braider, applying a cover of silk which was adhered to the strip by the dextrine.

When dry the long strips so covered were cut up into crimper lengths. The covering was cemented or adhered directly to the metal strip of each crimper. I know this because I picked and pulled the crimpers to pieces and found that the strands or threads of the covering were cemented or stuck to the metal. I was interested in the adhesive properties of dextrine because I had thought of using it to stick a paper clock-dial to a metal back.

186 After finding by personally picking crimpers to pieces that the dextrine stuck their coverings to their cores I used dextrine for sticking paper clock-dials to metal backs as referred to.

I distinctly remember picking the crimpers to pieces and finding their coverings cemented to their cores and of seeing the braider in operation and the long bare metal strip passing through the solution of dextrine in the pan and then up through the braider, where it received a covering of silk. The dextrine was prepared at times by placing the pan in hot water, in the dip-room, when it was clear and thick enough to be strongly adhesive. All the events and things above referred to occurred in 1876.

TIMOTHY B. ROBINSON.

Sworn to and subscribed before me this sixth day of May, 1885.

GEO. D. SEYMOUR,
Notary Public.

187 In the United States Circuit Court for the Southern District of New York.

HERSHEY *et al.*
vs. } In Equity.
GILES *et al.*

STATE OF CONNECTICUT, } *ss:*
County of Hartford,

Mrs. Geo. A. Gowdy, of Bristol, in the county of Hartford and State of Connecticut, being duly sworn, deposes and says:

In 1876 I worked at Bristol, Ct., for Gilbert H. Blakesley, at that time making a hair-crimper and other articles.

The hair-crimper consisted of a soft metal strip having a braided covering.

It was at one time made by passing a long bare strip of the metal through a thick solution of dextrine contained in a pan and then up through a braider, applying a covering of silk.

I distinctly remember seeing the braider running and the long bare strip of metal passing through a solution of dextrine and then through a braider, applying a covering.

Afterwards the covered strips were cut up into crimper lengths.

The dextrine solution employed was thick and sticky
188 and of a deep-amber color.

All of the things above mentioned occurred in 1876.

MRS. GEO. A. GOWDY.

Sworn to and subscribed before me this sixth day of May, 1885.

[SEAL.] GEO. D. SEYMOUR,
Notary Public.

STATE OF CONNECTICUT, } *ss:*
County of Hartford,

This deponent, Mrs. Geo. A. Gowdy, being again sworn, deposes and says that her statements herein were made without any knowledge whatsoever of the result of the suit.

MRS. G. A. GOWDY.

Sworn to and subscribed before me this twenty-fifth day of May, A. D. 1885.

[SEAL.] GEO. D. SEYMOUR,
Notary Public.

189 In the United States Circuit Court for the Southern District of New York.

HERSHEY *et al.*
vs. } In Equity.
GILES *et al.*

STATE OF CONNECTICUT, } *ss:*
County of Hartford,

Rufus Sikes, of Bristol, in the county of Hartford and State of Connecticut, being duly sworn, deposes and says:

In 1876 I worked, off and on, for Gilbert H. Blakesley at Bristol, Conn. At this time he was making a hair-crimper consisting of a soft metal core having a braided covering cemented directly to it. I know that the covering adhered to the core of the crimper because I examined and tried them and found it to be the case. I picked and pulled the covering off and found it adhered to the metal. I did no work upon the crimpers.

The facts above referred to occurred in 1876.

RUFUS SIKES.

Sworn to and subscribed before me this sixth day of May, 1885.

[SEAL.] GEO. D. SEYMOUR,
Notary Public.

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190 In the United States Circuit Court, Southern District of New York.

HERSHEY *et al.*
vs. } In Equity.
GILES *et al.*

STATE OF CONNECTICUT, } *ss:*
County of Hartford,

Gilbert H. Blakesley, being duly sworn, deposes and says:

I am the Gilbert H. Blakesley, affiant and witness in this cause. When I made this affidavit I was not able to swear positively that in 1876 I made hair-crimpers by passing a bare crimper strip through a bath of dextrine and then through a braider, applying a covering. Therefore I made no mention of such process in my affidavit. Subsequently, however, I became assured that I had in fact employed such a process for a time in 1876, and therefore testified to it when called as a witness in the case. After studying the matter over carefully I was able to recall and fix the following facts: I remembered that one of my shop hands came to me with some discolored crimpers and asked what was to be done with them. These crimpers were discolored in braiding and were braided by passing the crimper strip through a pan of dextrine and then
through a braider, which put on a covering of silk, which
191 was cemented to the metal. Now, the silk employed, being
delicate, was sometimes stained by the penetration of the

cement through from the metal to its outer surface. The silk when stained retained its stained look after drying. Sometimes considerable lengths of the strip would go through without staining; then a long length would be stained. Sometimes this stained strip was cut up and marketed, sometimes not. To save the stained strip I hit upon the plan of covering it over again, which I did, and produced a crimper having two coverings of silk. I did not make crimpers by passing the bare strips through the dextrine and then into the braider any great length of time, although I made quite a quantity of crimpers that way, and sold them, but the quantity was small as compared with the double-covered crimpers made with silk and cotton, and I did not clearly recall the circumstance of employing the bare-metal-bath process until I remembered the incident of the discolored strips and covering them over with silk twice, and this did not come to me until after my affidavit was prepared, which I did not intend should contain all the details of the business, for some were left out which I might have put in and sworn to.

Silk being more delicate than cotton as to being stained by dextrine, at least some precaution was in the cotton-covered-bath process necessary to prevent staining. The rollers spoken of as stripping rollers were made for this very purpose, for they removed the excess of dextrine from the surface of the cotton and prevented the 192 cement from striking through the silk. At the same time the rollers acted to drive the cement through the cotton and onto the metal. The stripping off of the excess of cement was not to prevent a thorough saturation of the cotton, which was in fact saturated before it reached them. The removal of the excess of gum was to prevent it from discoloring the silk.

GILBERT H. BLAKESLEY.

Sworn to and subscribed before me this twenty-fifth day of May, A. D. 1885.

[SEAL.] GEO. D. SEYMOUR,
Notary Public.

193 In the United States Circuit Court, Southern District of New York.

HERSHEY *et al.*
vs. } In Equity.
GILES *et al.*

SOUTHERN DISTRICT OF NEW YORK,
State of New York, County of New York, } *ss:*

George D. Seymour, being duly sworn, deposes and says that he is of defendants' counsel in the above cause, and that the fact regarding the omission of mention of the practicing of a bare-metal-bath process in 1876, in the affidavit of Julius Wright, filed in the cause, is that, in connection with the preparation of the said affidavit, the

affiant stated that he saw in 1876 a hair-crimper made by passing a bare strip of metal through a bath of dextrine and then through a braider applying a covering; that at such time, the said Wright being the only person known to the deponent to be able to swear positively regarding the practicing of a bare-metal-bath process in 1876, he, the deponent, decided not to incorporate the fact in the affidavit of Wright, because the affiant could also swear to the existence in 1876 of another continuously cemented hair-crimper, then believes and still believed to constitute a complete anticipation for the patented crimper, and because that there were others that could
194 swear to the existence in 1876 of the crimper last mentioned,
wherefore, the complainants' solicitor having refused an extension of time, which, had it been granted, would have enabled the defendants to have canvassed the matter of the anticipating crimper more thoroughly than it was possible in the time available to do, the defendants' counsel, believing the facts then available and appearing in the affidavits file- sufficient in the premises, and also believing that the practicing of the bare-metal-bath process in 1876 could be made available, entirely without prejudice, in the proofs, decided, rather than ask an extension of time from the court, to omit all mention of the bare-metal-bath-process known by Wright to have been practiced in 1876 from his affidavit and to search for further evidence on such point and present the matter in the proofs.

And in explanation of the omission of reference to the bare-metal-bath process as practiced in 1876 from the affidavit of Gilbert H. Blakesley filed herein, the deponent says that in connection with the preparation of the affidavit of the said Blakesley that he, the affiant, stated that he was strongly of the impression that a bare-metal-bath process was practiced in 1876, but that, inasmuch as he was occupied with a great variety of work at that time, he could not then make positive statements regarding it, wherefore, as time for the said affiant to look the matter up was not available and as the affiant could make positive statements respecting the existence in 1876 of a continuously cemented crimper, then believed and still
believed by the deponent who prepared the affidavits to be
195 sufficient to invalidate the complainants' patent, and, as deponent believed, as the matter of the bare-metal-bath process as practiced in 1876 could be made available in the proofs entirely without prejudice, the affidavit was confined to facts to which the affiant could positively swear.

Deponent further says that subsequently and in connection with contemporaneous circumstances Blakesley became enabled to testify. positively that a bare-metal-bath process was in fact employed in 1876 in making hair-crimpers, wherefore, the affiant becoming one of the defendants' witnesses, he testified as to the bare-metal-bath process, as did also affiant Wright, who also became a witness for the defense.

And the deponent, believing that this matter of the bare-metal-bath process can be shown and established to the satisfaction of the court, desires an opportunity of submitting further testimony on the point.

Deponent further says that he believes the statements of the defendants' witnesses respecting the fact of the cementation of the covering of the anticipating crimper to the core thereof were sufficient to establish the fact; but, the court not adjudging them so, he desires an opportunity of presenting further testimony upon the point of cementation to the core upon the object in view in using the bath of dextrine and such other testimony as shall place in the hands of the court such facts as shall enable it to do complete equity in the premises.

196 Deponent further says that he is a resident of New Haven, Connecticut, and that he was not aware of the decision in the case until the 24th day of April, 1885, when the decision was placed in his hands by the clerk of the court, and that without this a motion for an order for reopening and rehearing the case would have been noted at an earlier day.

Deponent further says that he has had conversations with the witnesses and with parties named in the defendants' answer and fully believes that the fact of cementation to the core of the practicing of the bare-metal-bath process of 1876 and any other points not made clear by the defendants' proofs can be established to the complete satisfaction of the court if the order prayed for is granted.

GEORGE D. SEYMOUR.

Sworn to before me this 25th day of April, 1885.

WM. E. STILLINGS,
[SEAL.] (106), *Notary Public, N. Y. Co.*

Endorsed: In the U. S. circuit court, southern district of New York. Hershey *et al. vs.* Giles *et al.* In equity. Notice of motion and affidavit of Geo. D. Seymour. Service admitted this 25th day of April, 1885. Francis Forbes, att'y for pl'ff-. Worth Osgood, sol. for def'd'ts, 43 Astor house, N. Y.

197 STATE OF CONNECTICUT, }
County of New Haven, } *ss:*

This deponent, George D. Seymour, being again sworn, deposes and says that the foregoing is the affidavit made by him and accompanying the motion filed and set down for hearing on the 8th inst. and withdrawn.

The deponent further states that subsequently to the filing of such motion important testimony was discovered, wherefore such motion was withdrawn to permit the filing of another motion to make the newly discovered matter available at the hearing of the motion.

Deponent further states that prior to the trial of this cause he made repeated visits to Bristol, Connecticut, where he spent time, covering many days, searching for testimony in the case, and that in searching for such testimony he saw some parties in the village and drove out to see others, and that — were seen by him and Mr. G. H. Blakesley, whose assistance in searching for testimony he had, not less than twenty-five and probably a greater number of persons, and that he made every effort in his power to secure evidence in the case, sparing no time and endeavor in that behalf.

The deponent further states that, among others, he had seen on as many as three separate occasions Mrs. G. A. Gowdy, who was also seen on as many separate and other occasions by Mr. G. H. Blakesley; that on each and all of these interviews Mrs. Gowdy was carefully questioned and asked such questions as were thought at that time 198 best calculated to bring out her entire knowledge of the prior public use and sale of the patented crimper; but notwithstanding these several and prolonged interviews and the earnest endeavor made to get at Mrs. Gowdy's entire knowledge of the premises, it was not found that she had any knowledge of the matters now set forth in her affidavit accompanying this present motion.

The deponent further testifies that he is informed that subsequently to the trial and about the first of the current month Gilbert H. Blakesley met Mrs. Gowdy on the streets of Bristol, Connecticut, and had a conversation with her, during which it was brought out that she herself had prepared dextrine up to the shop while working for Mr. Blakesley, and that she had seen a thick and sticky amber-colored bath of dextrine used in making a hair-crimper, in which operation a bare strip of metal was first passed through such a bath of dextrine contained in the pan and then up into and through a braider applying a covering of silk to the strip. This statement came out as an entire surprise to Mr. Blakesley, who had before failed to find out that she had any knowledge of the so-called bare-metal-bath process.

Deponent further states that later and on the 6th day of May Mrs. Gowdy repeated the foregoing statements to him and said that she had seen crimpers so made at Bristol, Connecticut, prior to her going to Philadelphia to see her sister in 1876; whereupon Mrs. Gowdy made the accompanying affidavit.

Deponent further states that at the time of making her af- 199 fidavit Mrs. Gowdy had no knowledge whatsoever of the result of the trial, which indeed she did not learn until the 25th day of May, when she supplemented her affidavit by a sworn statement to the effect that when she made her affidavit she had no knowledge of the result of the trial.

Deponent further states that the matters appearing in this affidavit of Mrs. Gowdy are entirely new to him and to all others, so far as he is informed since the trial, and that prior to the trial every effort was made in the six or more interviews had with Mrs. Gowdy to ascertain her knowledge in the premises.

Deponent further says that prior to the trial of this cause Gilbert H. Blakesley had, as he is informed, conversation with Fred. B. Mitchell, who was at the time or had recently been the principal of the High school at Thompsonville, Connecticut, respecting his knowledge of the prior public use and sale of the patented crimper, and that subsequently and yet before the trial deponent had at least two similar conversations with the said Mitchell after he, the said Mitchell, had become a student at the Yale law school. But notwithstanding that at such conversations he was asked such questions as were thought calculated to bring out his knowledge of the prior public use and sale of the patented crimper nothing of importance was drawn out, wherefore he was not put on as a witness.

Deponent further says that on the first day of May, 1885, he met the said Mitchell in the city of New Haven and brought up
200 the subject of the crimpers, whereupon the said Mitchell
stated that in 1876 and while working for Mr. Blakesley he had seen crimpers made by passing the crimper strip uncovered through a pan containing an adhesive material and then into a braider applying a covering of silk, and also that he had put clips or trimmings onto the crimpers and had particularly and repeatedly observed that the strands or threads of the covering adhered to the metal.

The deponent further states that these statements of Mitchell's were a complete surprise to him, and that no one knew, so far as he is informed, that such matters were in Mitchell's knowledge, and that he, the deponent, had failed entirely in eliciting them from him on previous questioning.

Deponent further states that upon the same day the said Mitchell made the accompanying affidavit, and on the 25th day of May added thereto the statement that he had no knowledge whatsoever of the result of the trial when such affidavit was made.

Deponent further says that prior to the trial Timothy B. Robinson was many times questioned about his knowledge of the prior public use and sale of the patented crimper, but without eliciting anything from him save the fact that he knew that crimpers were made in 1876.

Deponent further says that on the 5th or 6th day of May he saw the said Robinson and learned from him that in 1876 he had seen a bare-metal process for making hair-crimpers in use, such process consisting in passing a long strip of metal through a bath
201 of dextrine and then through a braider applying a covering
to the strip, and that he had occasion to study the properties of dextrine at such time inasmuch as he was in search of a suitable cement for adhering paper clock-dials to metallic backs, wherefore in that connection he remembered the use of cement made of dextrine.

The deponent further states that on the 6th day of May the said Robinson made the affidavit accompanying this motion, and that the matters in such affidavit are entirely new to him so far as Mr. Robinson is concerned since the trial, all previous conversations with Mr. Robinson having failed to elicit his knowledge of the facts appearing in the affidavit.

The deponent further states that the knowledge of the bare-metal process appearing in the respective affidavits of George Lewis and Frank D. Hubbell is entirely new to him so far as they are concerned since the trial, such testimony not having been discovered in careful and extended search made prior to the trial for testimony; and the same with regard to the affidavit of Rufus Sikes.

The deponent further says, and finally, that all of which affidavits relating to newly discovered evidence contain evidence entirely new to him as to these parties since the trial.

GEO. D. SEYMOUR.

Sworn to and subscribed this 26th day of May, 1885.

[SEAL.] EDWARD H. ROGERS,
Notary Public.

202 U. S. Circuit Court, So. Dist. of N. Y.

HERSHEY *et al.*
vs.
GILES *et al.*
} In Equity.

STATE OF NEW YORK,
City and County of N. Y., } *ss:*

John Buckler, of lawful age, being duly sworn, deposes and says that he served the within notice of motion and affidavits upon Francis L. Forbes, sol. for complainants, by leaving a true copy thereof in the possession of said Forbes, at the same time showing him this original at his office, No. 137 Broadway, N. Y. city, N. Y., this 27th day of May, 1885.

JOHN BUCKLER.

Subscribed and sworn to before me this 27th day of May, 1885.

WM. E. STILLINGS,
[SEAL.] (106), *Notary Public, N. Y. Co.*

Endorsed: In the United States circuit court, southern district of New York. Hershey *et al. vs.* Giles *et al.* In equity. Notice of motion and affidavits of Fred. B. Mitchell, Geo. Lewis, Frank A. Hubbell, Timothy B. Robinson, Mrs. Geo. A. Gowdy, Rufus Sikes, Gilbert H. Blakesley, and Geo. D. Seymour. Motion denied July 9, 1885. Wm. J. Wallace. Service of copy hereof acknowledged this 27th day of May, 1885. —— ——, sol. for compl'ts. Filed in open court June 26, 1885. T. Worth Osgood, sol. for def'd'ts, 43 Astor house, N. Y.

203 John J. Jennings, attorney and counsellor at law, office over National bank.

BRISTOL, CONN., *Apr.* 10, 1889.

DEAR SIR: Please send me immediately the exact date of filing master's report in Hershey *et al. v.* Howard M. Giles *et al.* and add my name for that of Mr. Seymour as counsel for def'ts in case. Mr. Seymour is to go abroad, and I shall in future have the direct conduct of the case in charge.

Yours truly, JOHN J. JENNINGS.

Endorsed: Circuit court U. S., south. dist. N. Y. Hershey *et al.* *vs.* Giles *et al.* Notice of appearance as counsel for defendants by John J. Jennings. U. S. circuit court. Filed Apr. 11, 1889. John A. Shields, clerk.

204 United States Circuit Court, Southern District of New York.

CHRISTIAN H. HERSHEY *et al.*
vs. } In Equity.
HOWARD M. GILES *et al.*

NEW YORK, *September 11th*, 1888.

On application of Francis Forbes, attorney for complainant-, the master signs the following order setting down the case for hearing:

United States Circuit Court, Southern District of New York.

CHRISTIAN H. HERSHEY *et al.*
vs. } In Equity.
HOWARD M. GILES *et al.*

SIR: You are hereby notified that the accounting of the defendants in the above-entitled action ordered to be taken before the subscriber, one of the masters of this court, by a decretal order made in the above-entitled action by the Hon. William J. Wallace, one of the judges of this court, and filed in the office of the clerk of this court on the 17th day of April, 1885, will be proceeded with
205 at my office, No. 16 Exchange place, in the city of New York,
of the 17th day of September, 1888, at 11 o'clock in the forenoon.

You are hereby notified to be present at that time to cross-examine any witness that may be produced.

Dated N. Y., Sept. 11, 1888.

SAMUEL A. BLATCHFORD, *Master.*

SEPTEMBER 17TH, 1888—11 a. m.

Present: Mr. Joshua Pusey, counsel for complainants, and Mr. George D. Seymour, counsel for defendants.

Counsel for complainants offers in evidence the master's order setting down hearing, which is marked "Complainants' Exhibit Master's Order." He also offers in evidence the notice signed by Francis Forbes, solicitor for complainants, and addressed to Worth Osgood, Esq., solicitor for defendants, requiring him to produce on the hearing before the master an account of the number of hair-crimpers made, sold, or used by the defendants herein in infringement of plaintiffs' rights under their patent in suit as determined by a decree of this court filed in the office of the clerk thereof on the 17th day of April, 1885.

Also all other documents, letters, books, papers, and writings whatsoever in his control or in the control of the defendants containing any entry, memorandum, or other matter in anywise relating to the matters in question on the accounting herein.

206 The notice is marked "Complainants' Exhibit Notice to Account."

On application of counsel for defendants the time for the defendants to file their account is extended to September 25th, at 12 noon, to which time the next hearing is adjourned.

SEPTEMBER 25TH, 1888—12 m.

Present: Counsel as before.

By consent the filing of the defendants' account and further hearing is adjourned to October 5th, 1888, at 11 a. m.

OCTOBER 5TH, 1888—11 a. m.

By consent the filing of the defendants' account and further hearing herein is adjourned to October 12th, at 11 a. m.

OCTOBER 12TH, 1888.

Present: Counsel as before.

The defendants' counsel produces and files with the master the accounts called for under the notice and they are marked "Defendants' Exhibit Accounts." The complainants' counsel accepts the accounts as being a true copy from the books of the defendant.

207 HOWARD M. GILES, called on behalf of the complainants, testifies as follows:

Direct examination by Mr. PUSEY, counsel for complainants:

1 Q. You are a member of the firm of Noys, Smith & Company and one of the defendants in this case?

A. Yes.

2 Q. How long have you been engaged previous to this suit in selling hair-crimpers?

A. I have not the most remote idea. I could not tell anything about it and cannot tell how long before this suit commenced, but we did sell a few crimpers——

3 Q. What crimpers besides what are known as Blakesley crimpers have you sold?

A. I cannot tell if before or after we sold some — Ivins, of Philadelphia, and we sold Madam Louis crimpers. We sold some of them previous to this suit.

4 Q. Some of the complainants'?

A. Yes.

5 Q. You were the complainants' agent in New York for the Madam Louis crimpers, were you not?

A. Never.

6 Q. You simply sold them in the regular course of trade?

A. Yes.

7 Q. When you ceased selling the complainants' crimpers, what did you then sell?

A. I do not remember whether the Ivins next or a thing called the Montague, those cloth things. We sold them as crimpers. I don't remember how many different kinds.

8 Q. What was the construction, if you recollect, of the
208 Ivins crimper?

A. Bent wire with a slide to hold it to the hair.

9 Q. Covered with cloth?

A. No.

10 Q. I thought it was.

A. No; we have a lot of those in store now.

11 Q. Do you recollect what you paid for Madam Louie crimpers?

A. No.

12 Q. And the price at which you sold them?

A. No.

13 Q. What is the Montague crimper?

A. I don't know how to describe the thing; about the size of a 25-cent piece, round. The first we saw were imported goods.

14 Q. These were not used for crimping the hair, but for curling?

A. We called them crimpers and sold them as that.

15 Q. At the time you commenced to use the Madam Louis crimpers state whether or not you knew of any other similar crimpers in the market or, in fact, any crimpers.

A. Well, I could not answer that. I don't know. I cannot tell the date we commenced the Madam Louie, but another crimper was shown before we sold the Madam Louie. I don't know which was first.

16 Q. How long before this suit commenced was it that you sold the Madam Louie crimpers?

A. I could not tell.

17 Q. Was it a year or six months, the best you can remember, or longer?

A. Merely by guess. It may be a year or 6 months or 3
209 months. I have no way of recollecting.

18 Q. You don't know or recollect of any crimper in the market similar to the Madam Louie previous — or at the time that you sold the Madam Louie?

A. Yes; I know another.

19 Q. What was that?

A. I don't know the name, but I think it was sold by Porter Brothers; but I don't know anything about it.

20 Q. Do you recollect how long ago that was sold?

A. No.

21 Q. Or its construction?

A. No.

22 Q. How did it differ from the Madam Louie?

A. I don't know anything about it.

23 Q. Did you have charge of buying or selling of crimpers for your firm?

A. Both.

24 Q. In the statement which you have rendered, and which is in evidence, the amount which the different crimpers cost you

have stated at $956.60, and the amount of sales $1,154.15. State whether or not the difference between these sums represents the actual profit which you made by the sale of crimpers.

A. It does. I suppose there should be a deduction for the expense of doing the business.

25 Q. What proportion, in your opinion or to your knowledge—what proportion is chargeable to this expense of doing the business?

A. In general business, on similar accounts, we consider from 10 to 12½ per cent. for the expense.

210 26 Q. On the selling price or buying price?

A. Selling price.

27 Q. Which do you think proper to estimate in this case, 10 or 12½ %?

A. This is one of those things that we cannot estimate.

28 Q. Then your estimate is merely a guess, I presume.

A. Yes.

29 Q. You do not recollect, as I understand you, whether you sold the Ivins crimpers previous to the Madam Louie or subsequent?

A. No; I don't recollect.

30 Q. State whether or not, if you can recollect, if you paid more for the Madam Louie crimpers than you did for the different crimpers; and, if so, the difference, as near as you can.

A. I could not remember at all the difference; it is 4 or 5 years ago.

31 Q. At the time you sold the Madam Louie crimpers were you or not aware of any other crimper in the market or on sale that operated similar to or was used like the Madam Louie crimper?

A. I don't know. Was it a crimper sold twisted and used the same as was this one?

31½ Q. I don't know.

A. I can only tell what I have seen.

32 Q. Was that expensive or not, comparatively?

A. I don't know.

33 Q. State whether or not you know of any crimper at the present time in the market except the complainants' crimper, the Madam Louis, and the defendants'?

211 A. What has that to do with this? There is another in the market which looks just like both.

34 Q. What is that?

A. I don't know—the Guild crimper.

35 Q. That crimper has no cover?

A. I don't know. It has been offered to me and I would not take it.

36 Q. Why not?

A. I have to get one of these suits straightened out before I get two.

37 Q. What crimper, if any, did you know of in the market previous to the date of the complainants' patent, which is August, 1879?

A. I don't know anything about it.

Cross-examination by Mr. SEYMOUR, counsel for defendants:

38 X Q. What is the business of Noys, Smith & Company, the defendants in this case?

A. It is a notion business—commission notion.

39 X Q. Can you tell about how many different lines of goods you carried at the time you were selling the Blakesley crimpers?

A. General lines of business?

40 X Q. Yes.

A. About a thousand different items or perhaps two; I cannot state what is in it.

41 X Q. Was the Blakesley crimper an important article of sale with you as compared with the other lines of goods which you sold?

212 A. It was not.

42 X Q. Will you explain at more length how you got the figures you gave as the cost of selling the Blakesley crimper?

A. 10 to 12½ %. I only got at it in the general average, as I average up my business between small and heavy items. It is the only way we can average our business. If it was 100,000 it would not cost a cent more than what it is.

43 X Q. How much do you estimate that it cost you to handle the larger items?

Objection as immaterial. The question is as to the handling of crimpers, not other things.

Question withdrawn.

The witness is recalled by the complainants.

44 R. D. Q. The complainants' crimper consists of a strip of lead covered with braided coating cemented to the lead, does it not, if you recollect?

A. I am not an expert, but something of that kind. It is a metal.

45 R. D. Q. Coated with braid?

A. Yes; your description is about right.

46 R. D. Q. State whether or not, in your opinion, a metal without that coating or a similar coating would be salable in the market.

A. I could not answer that.

Signing of the deposition by the witness is waived.

Hearing adjourned to Monday, October 22nd, 1888, at 11 a. m.

213 OCTOBER 22ND, 1888—11 a. m.

Hearing adjourned to Monday, October 29th, 1888, at 11 a. m.

MONDAY, —— 29TH—11 a. m.

Present: Counsel as before.

ISAAC W. HEYSINGER, called on behalf of the plaintiffs and being duly sworn, testifies as follows:

Direct examination by Mr. PUSEY:

1 Q. You are president of the Philadelphia Novelty Manufacturing Company and manufacturer of the Madam Louie hair-crimper made under the Mills & Hershey patent upon which this suit was brought?

A. I am.

2 Q. When was the manufacture of these crimpers begun?

A. The manufacture was begun in the spring of 1877 in Philadelphia.

3 Q. By whom?

A. By Mr. Christian H. Hershey, one of the complainants in this case. Shortly after the manufacture was begun in 1878 my brother, J. Loren Heysinger, purchased an interest with Mr. Hershey, and shortly afterwards I became a third partner in that firm, known then and there as the Philadelphia Novelty Manufacturing Company. In the fall of 1884, September 30th, Mr. Hershey died and his interest in the business was purchased by the surviving partners, who continued the manufacture of the hair-crimpers in question, and in February, 1884, the same was converted into a 214 joint stock company or corporation, which purchased all the interests of the preceding firm and continued the manufacture of said hair-crimpers and still continues the manufacture. In the beginning of 1877 Mr. Hershey, in connection with Mr. William Mills, invented this hair-crimper jointly. Mr. Mills by deed of assignment at the time the application for letters patent was made deeded his interest to Christian H. Hershey, who at the same time deeded one-quarter interest in the said letters patent when issued to J. Loren Heysinger.

4 Q. Have these crimpers been sold to great or small extent comparatively?

A. These crimpers were sold to a large extent some time after their introduction. At first it was exceedingly difficult to find a market for them, and the entire profit by the manufacture was converted to finding an outlet for them for several years, as the market had to be created. This required considerable time, so that for the first few years there was no profit, considerable pushing having to be done in making the enterprise self-sustaining; but after the 3rd year it paid a small profit over and above the cost of manufacturing and introduction, sales largely increased, and very large quantities were sold and are still sold. We have consumed in the manufacture of these crimpers in one year more than 150,000 pounds of lead, which is one of the constituents of the crimper as manufactured, and our sales have been as many as 20,000 great gross of 1,728 crimpers each in one year.

5 Q. Please state whether you are aware if and what crimpers

were on the market at the time this invention was made
215 or at the time the patent was granted.

A. I have no knowledge of any other crimpers being on the market at the time the invention was made by Mills & Hershey. At the time the patent was granted or shortly before, to wit, 1879, there was a crimper known to the trade somewhat, which was supposed at that time to have been made in England. This crimper consisted of a strip of brass or copper having an inner covering of scarlet braided fabric composed of cotton and an outer covering of crimson silk braided over the cotton covering, and this covering secured to the copper or brass strip by a metallic clip extending over the free ends and swaged down upon the metal. These crimpers were sold to a small extent, so far as I know—we heard at 25 cents per dozen. They were expensive to manufacture, the metal being brass or copper, the inner braided covering of cotton supplemented by the outer braided covering of silk and the nickel-plated end clips, so that the entire crimper was expensive to manufacture. The end clips also cut into the hair, and when they were attached the ends stripped off from the metal clip, exposing the sharp cut ends of the brass or copper, and the whole cover became readily unattached. They could not also be divided into shorter lengths, as is done with the Mills & Hershey crimpers, for children, since no end clips would be then upon the end next to the newly cut ends of the covered strip. Mills & Hershey's crimpers consisted of a strip of flat lead covered with a single layer of cotton braid of a brown, black, or blond cover to correspond with
216 the color of the hair with which it was to be worn, as a
crimper was intended to be worn by ladies and children and kept out of view, and this cover was directly cemented to the metal core strip by having the metal strip passed through a bath of dextrine solution, and this while still wet with the said solution directly put through the braiding machine with the braid or covering around it, as described in the patent.

6 Q. Have you been familiar with the details of the Madam Louie crimpers and the cost thereof, the selling price; if so, for what length of time?

A. I have been familiar with the details of manufacturing and cost of material, the selling price of crimpers, and all the details of the business connected therewith from the beginning of 1878 to the present time.

7 Q. What crimpers, if any, so far as your knowledge and information extend, were on the market at the time this suit was brought excepting, of course, the defendants' crimpers?

A. There were no other crimpers on the market for the same purpose constructed in the same general manner or operated in the same way.

8 Q. How is it as to the Ivins crimper, referred to in Mr. Giles' testimony on this accounting?

A. The Ivins crimper, so called, was simply a hairpin with a metal clamp to bridge the interspace of the projecting prongs. In using it the hair was wound in and out in a braid across the prongs, each strand intersecting the preceding strand in the interspace between the prongs. The winding of the hair upon this 217 crimper was begun next to the head, terminating at the end of the strand, as it was impossible to use it any other way; when the end of the strand was reached the clamp was applied extending across from one prong to the other and having inbent ends, and this clamp was pushed down against the hair. The prongs projecting from these crimpers to a variable distance were dangerous and unsightly and the crimper when worn was quite conspicuous and an adjunct to the head of the wearer; the Mills & Hershey crimpers, on the contrary, were wound from the very end of the strand of hair to the head, rolling the hair in a little ball or wad of superimposed layers, and the projecting ends of the crimpers were then bent around and under this little roll of hair, so that all that was visible was the roll of hair, and the ends of the crimpers were thus bent under, and, being of the same color as the hair, the whole was almost or entirely invisible. This led to their rapid introduction when once extensively offered to the consumer, for the trade would not touch them until the demand had been made by diligent efforts with the consumers through the ordinary channels known as the agency trade.

9 Q. How did the cost of these Ivins crimpers compare with that of the Mills & Hershey?

A. We have made these Ivins crimpers ourselves to a certain extent after the expiration of the Ivins patent, and I am able to state this cost—they cost to manufacture about six times as much as the Mills & Hershey crimpers; they were not used for the same purpose as the crimper which we produced; that was different in 218 character and one would not be a substitute for the other.

10 Q. At the time of the invention and introduction of the Mills & Hershey crimper what devices were ordinarily used for crimping the hair?

A. With the exception of the Ivins, which is above described and which I inadvertently omitted to mention as a crimper in use at the time of my previous answer, not having it in mind from its different construction and mode of use—with that exception I know of no other crimper as an article of trade, but bits of paper were used to wrap the hair around in a similar manner, and after the hair had been wound up the ends of these papers were twisted around to the front and twisted together, so that they projected around the head in a highly ornamental manner, and when 20 or more were used, as was the case, the effect was often startling.

11 Q. What crimpers have been put upon the market since the Mills & Hershey crimper patent, since the introduction of the Madam Louie crimpers?

A. An imitation of the Mills & Hershey crimper was tried in the year 1880, I think, to a small extent, but we stopped the manufacture by an injunction at once. I know of no other except the defendants' crimper.

12 Q. So that, as I understand, the only crimper at present open

to the public having in view the decree in this present suit, so far as you know, is the Mills & Hershey crimper. Is that correct?

A. It is correct as regards any crimper of this general class or adapted to perform this work.

219 13 Q. What is the selling price—I mean the wholesale selling price—to dealers of the Mills & Hershey or Madam Louie crimpers? In stating this please give the grounds or basis of your knowledge at the time the suit was brought against the defendants.

A. I have paid all the bills for material for many years in the Philadelphia Novelty Company and made all the estimates of costs of the manufactures, having a thorough knowledge of the status of the business and the difficulties encountered and the expenses incurred and the profits. In computing the profits we have not only considered as a profit the difference between the cost of manufacturing and selling at the time, but the reimbursement of previous losses, so that in estimating what the annual profit would be account is taken of past expenses, but in making direct sales, such as the greater sale or a less sale to any particular concern or for any particular period, the profits are net profits and are not computed that way. What I mean by this is that in case we had sold crimpers at a loss for one year and for the next year at a profit the entire profit would be the average of the two, but if during the second year we had lost a sale to an important house of a certain quantity of these crimpers that loss would be direct loss due to the difference between the cost of production and sale at that particular time and not the average between that and any prior year. This should be understood in computing profit on a new article put into the trade with difficulty and expense and is a universal system with all 220 manufacturers of patented articles or articles difficult of introduction throughout the world. The net cost of the short crimper of the short or ordinary size, which is our usual basis of estimate and which corresponds in all respects practically with the defendants' crimper, one being used interchangeably with the other at that time, to wit, the latter part of 1883 and the beginning of 1884, was one dollar and four-tenths of a cent per great gross, and our lowest selling price to the trade was $2.16 per great gross. In addition we paid to our New York commission house, through whom the defendants were supplied with these crimpers, a commission of 5 per cent., which, with boxes and freight being deducted, left the lowest net selling price to us two dollars and two-tenths of a cent per great gross. The difference represented a profit on each sale, but by no means represented the average profit since the business was begun. That is why I draw this distinction above. We paid for lead from July 1st, 1883, to July 1st, 1885, $10,066.80, and for thread $6,103.30, for boxes $2,996.50, for dextrine $300, and for labor $5,719.12. During the same period we produced 29.196 great gross. This represents the lowest value—thus, $1.004 per gross, the difference being made up in cases and freights which we sometimes paid. We were equipped at that time to manufacture more of these crimpers than we then produced, and any slackness of demand necessitated a reduction of output which we were

abundantly able to supply—an axiom generally known among
manufacturers of this class of goods, "that the greater
221 the product the smaller the relative price." In making
goods at these low prices every means of economizing possi-
ble was used and special machinery of my own invention was
employed for the purpose. The cutting, counting, and bundling
were done automatically at a greater speed than any one could
count, which greatly diminishes the cost of preparation for the
market. We also used a large number of braiding machines,
having many more on the benches than we at any time required
to be used, and if there were any sudden demand it merely caused
us to start up a few more machines, and any slackness of demand
to stop the running of one or more. When we first began the
manufacture of these crimpers in 1877 and 1878 the cost of produc-
tion was vastly greater.

14 Q. Please state the profits that you made on the Mills & Hershey crimpers at the time this suit was brought.

A. To the best of my knowledge and belief, our profits on any sales was $1.00 per great gross on regular size.

15 Q. What relation had you, if any, either directly or indirectly, to the defendants before this suit was brought?

A. In connection with Mr. Hershey, my partner, I called upon
the firm of Noys, Smith & Company, on Leonard street, New York,
in the latter part of 1883 or early in 1884 with reference to this
infringing crimper. I was directed to go to the 3rd floor and see
the man in charge, which I did, Mr. Hershey accompanying me.
We saw a gentleman in charge of that floor, or he represented him-
self as such, and we saw a stack of boxes of this infringing crimpers,
and alongside of them a stack of boxes of the Madam Louie
222 or Mills & Hershey crimper, which we were then making.
I asked him about prices. I think he offered me 5 per cent.
off from the prices of the Mills & Hershey for the other crimpers,
to wit, the infringing crimpers upon which this suit was brought,
and of which I then and there carefully examined, as did Mr.
Hershey. I asked him how these other crimpers were liked. He
said it was going well. He told me then they had sold 400 great
gross of them. I did not appear in a surreptitious manner or make
any false representations. I desired to see one of the firm to talk
the matter over. Seeing the gentleman in charge of the floor, I
asked him ordinary business questions, and again asked to see one
of the members of the firm. On our way out of the store, being
requested to call again, which we intended to do, we met Mr. Giles,
of the firm, on the step at the door, and I talked with him very
freely and told him what had been accustomed to the Mills & Her-
shey for years, had made the trade through handling that crimper,
and was now offering an imitation that Castle & Company, nearly
opposite, on the same street, had declined to have anything to do
with it. He spoke indefinitely. He left me to infer that he would
not incur the liability of suit, which I told him would be instituted
at once. I wrote him again after returning to Philadelphia, and
his firm of Noys, Smith & Company replied that they had had a

conversation with Mr. Blakesley, who is the manufacturer of this
infringing crimper, and that Mr. Blakesley, to the best of my recol-
lection, told him that he had the patent on these crimpers
223 more than two years before the Mills & Hershey crimper
was instituted. If this was not contained in a letter which I referred to I will swear positively that it was in conversation which I had with him on the subject on the step in his store. He intimated in his letter or stated in his letter that under the circumstances, if they were correct, as he believed they were, they proposed to get ahead, and they did get ahead until they were stopped by the injunction granted by the United States circuit court of this district. These crimpers had been offered to Castle & Company, who were also buyers of the genuine crimpers from us, and, after consulting with us, Messrs. Castle & Company declined to have anything to do with the crimpers. They continued to sell the Mills & Hershey crimper, and so continue to this day, largely.

16 Q. I understand from your answer that at this time Noys, Smith & Company, the defendants, were selling and had been selling the Mills & Hershey crimper. Were you or otherwise then prepared to fill any demands that might be made upon you by Noys, Smith & Company or any other parties for the Mills & Hershey crimper?

A. I have here the statement of the Mills & Hershey crimper supplied to the firm of Noys, Smith & Company by Cook & Valentine, who were then our New York commission agents, extending from June 1st, 1881, to October 11th, 1884, giving an itemized statement. They amounted to 491 great gross of short or ordinary
sized, which are the ones in general use, and 114 great gross
224 of extra long. At the foot of the memorandum Messrs.
Cook and Valentine have added the following: "Above goods were delivered to Noys, Smith & Company on memorandum consigned, and dates given are those of their returns of goods sold when they were charged on our books." That is to say, they were actually carrying our goods on commission and acting as commission agents for the sale of our goods at the time they took up the infringing crimper into their trade and before. We could at any time have supplied them at once with ten times as many as they used, more rapidly than they could have sold them, as measured by the sales of any other commission house or purchaser to whom we sold our crimpers. We were always ready and willing to supply them at the lowest and best market prices, and they did not pay for the goods until they made return of the consigned account of these goods when sold by them; in other words, we carried all their stock for them.

17 Q. Please state whether or not you have reason to believe, and, if so, give your reasons, that you would have sold a like number of the Mills and Hershey crimper as they in fact sold of the infringing crimper, assuming that you have examined the returns of sales made to the master on this accounting by the defendant.

A. I have examined the statement of sales of Noys, Smith and Company, and I am satisfied that they would have sold the same

number of our genuine goods if they had not handled the infringing article; in fact, they would have sold more, as the genuine article is a better article, and an examination of the accounts
225 sales of our crimpers, through our agents, Cook & Valentine,
show that from the time Noys, Smith & Company began to handle the genuine crimper their sales gradually increased, generally speaking, and after they began to handle the imitation crimper their sales rapidly fell off to nothing, practically, and an examination of the account of the imitation goods by Noys, Smith & Company does not show that the progress of sales was regular or steady with the infringing article, and I also infer that they would have sold more, practically, because other houses to whom we sold these crimpers had a very satisfactory trade, and upon that I base my judgment. Every imitation crimper sold by Noys, Smith & Company directly prevented the sale of a genuine crimper, for which it was designed to be a complete substitute.

18 Q. Please state what profit—what net profit—you would have made per great gross had you sold to Noys, Smith & Company in the usual channel an equal number of the Mills and Hershey crimpers as their statement shows that they sold of the infringing crimper.

A. We would have made $1.00 per great gross on the short or ordinary size and $1.50 upon the extra long size. At present, owing to the large advance in the cost of material and the large discount which we give the trade, from necessity, our profits are not so large as they were at that time.

19 Q. State whether or not these crimpers, either the defendants' or the Mills & Hershey, had any salable value as crimpers
226 unless the braided covering was cemented through its entire
length to the core, as described in the Mills & Hershey patent; and, if so, what value?

A. They had no value as hair-crimpers unless the covering was cemented to the core, and I am enabled to state this positively, because it sometimes happens in our manufacture that the pan of dextrine cement gets too low in its level and the long length goes through uncemented. We bundle this up when this occurs, sell it back to the lead mill for its weight in pig lead, and they burn off the cotton covering and melt it up again. With our present superintendent of this department we have very little of this sort of trouble, but at one time we lost a good deal of material this way, which led to a change in the construction of our dextrine vessels. The same loss sometimes formerly occurred in a different way. Dextrine solution has a powerful solvent action on some metals and will perforate a tin vessel like a seive, and sometimes the dextrine ran out through these holes and left the cup or pan empty. We were obliged to substitute heavy iron pots especially made for this purpose.

20 Q. In giving $1.00 as the profit on short crimpers and $1.50 on the long crimpers per great gross, do I understand that this is the absolute net profit after deducting the expense of manufactur-

ing, cost of selling, superintendence, and all expenses that are usually chargeable in the manufacturing business?

A. It includes all the labor, all the material, the shipment to New York, and if we had sold 1,000 great gross of crimpers at 227 that time, at the prices paid by Noys, Smith & Company, we would have cleared $1,000 in cash money more than we did clear if the crimpers were of the short or ordinary lengths, and $1,500 more than we did clear if they were of the extra long; the running expenses of the superintendent, &c., are not directly included, except as all parties connected with the crimpers are included in the labor account.

21 Q. State whether or not the Mills & Hershey crimper or the defendants' crimper, in your opinion, would have any salable value without the braided covering or a similar covering.

A. I think not; when the braided covering is gone the crimper is gone, just as an umbrella is worthless when the cover is gone. It would not pay to recover them and they would not be used without the covers.

22 Q. Mr. Giles has estimated that the cost of selling the defendants' crimpers is at 10 to 12 per cent. Please state what commission you allow the wholesale dealers for selling the Madam Louie crimper.

A. We paid our New York commission agents 5 per cent. We now pay our Philadelphia agents 7½ per cent., and have a special arrangement with our New York branch, as our New York office in which they are is a part of our own concern; the ordinary percentage on such goods is 5 per cent. I never heard of a staple article of the kind paying more than 10 per cent. commission, and do not believe such a thing is known; if it costs Noys, Smith & Company 10 to 12 per cent. to sell these goods after they had been 228 handling the Mills & Hershey crimper for two years and worked the trade up from 9 great gross in June, 1881, to 92 great gross in October, 1883, when their whole commission at that time was only 10 per cent. from wholesale, I do not see how they could have paid from 10 to 12 per cent. in getting rid of the imitation after they had made a market by the genuine goods unless the imitation crimpers were very bad indeed; many houses give only 3½ per cent. and 2½ per cent.; a man will go on the road and pay his own expenses for 10 per cent. on any ordinary line of salable goods, and I think he is mistaken in the cost of selling these goods. It is a universal saying that the commission-house that gets over five per cent. is sure to cut prices, and many will cut prices on five per cent. or even less.

23 Q. Please state whether you make these statements from your personal intimate knowledge of the business of manufacturing crimpers.

A. I make it from my personal knowledge as a manufacturer and from my acquaintance with other manufacturers and from my general knowledge of the trade in such goods and from what the commission has been to other houses and other lines of goods sold on commission with which we have become acquainted.

Cross-examination waived.

Further hearing adjourned to Monday, November 12th, at 12 m.

229 MONDAY, *November 12th*, 1888—12 m.

Present: Counsel as before.

It is admitted that in this statement, Defendants' Exhibit Accounts, that No. 1 in the second column signifies short crimpers and Nos. 2 and 3 in the second column long crimpers.

Complainants' counsel offers in evidence the statement of account of sales to Messrs. Noys, Smith & Company, of No. 63 Leonard street, New York city, of the Mills & Hershey, known as the Madam Louie crimpers, from June 30th, 1881, to October 11th, 1883, which account is sworn to by George J. Cook, of the firm of Cook & Valentine, and it is admitted by the defendants' counsel that this statement is a correct statement from the books of Cook & Valentine of the sales of said crimpers made by them to the defendant- during the time mentioned—that is, from June 30th, 1881, to October 11th, 1883.

Marked Complainants' Exhibit Cook & Valentine Account.

Hearing adjourned to Friday, November 23rd, 1888, at 12.

FRIDAY, *November 23rd*, 1888.

Present: Counsel as before.

It is stipulated between counsel for complainants and defendants respectively that the complainants may file an affidavit as to the retention by complainants of the monopoly of the manufacture of the patented invention, and that they have granted no licenses or rights to other persons to manufacture the same, and that such affidavit shall have the same effect as if the facts therein stated were duly testified to by the affiants. 230

Further hearing adjourned to December 7th, at 12 o'clock.

DECEMBER 7TH, 1888—12 m.

Present: Counsel as before.

Counsel for complainants offers in evidence an affidavit made by Isaac W. Heysinger and verified on the 4th day of December, 1888. It is marked "Complainants' Exhibit Heysinger Affidavit, S. A. B., master."

Counsel for both parties file with the master a package of complainants' long hair-crimpers, which is marked "Complainants' Hair-crimpers," and a package of the short infringing hair-crimpers, which is marked "Infringing Hair-crimpers."

Testimony closed and case summed up by counsel for respective parties.

FEBRUARY 8TH, 1889.

The master, having prepared his draft report, caused a copy of it to be served upon the counsel for the respective parties, accompanied by the following notice, viz:

231 Circuit Court of the United States, Southern District of New York. In Equity.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER, Complainants,
vs.
HOWARD M. GILES, ELBRIDGE G. BROWN, ROBERT M. CUGLE, and ISAAC P. SMITH, Trading as Noyes, Smith & Co., Defendants.

SIRS: You are hereby notified that I have prepared the draft of my report upon the matters referred to me as master by the interlocutory decree herein, dated the 17th day of April, 1885, and that a copy of such draft report accompanies and is annexed to this notice and is herewith served upon you. You are also hereby notified that I shall sign and file said draft report as my report herein unless alterations are made by me therein upon suggestion of counsel for either party hereto, and that I appoint the 14th day of February, 1889, at my office, room 19, fifth floor of No. 16 Exchange place, in the city of New York, at 11 o'clock in the forenoon of said day, for counsel for either party hereto to present to me any suggestions of amendments to or alterations of said draft report and to file with me written objections or exceptions thereto, if they have any, to the same.

Dated New York, February 8th, 1889.

232 Yours, &c., SAMUEL A. BLATCHFORD, *Master*.

To Joshua Pusey, Esq., counsel for complainants, 905 Walnut street, Philadelphia, Pa., and George D. Seymour, Esq., of counsel for defendants, 81 Church street, New Haven, Conn.

FEBRUARY 14TH, 1889—11 a. m.

Settlement of draft report adjourned by consent to February 21st, 1889, at 11 a. m.

FEBRUARY 21ST, 1889—11 a. m.

Present: Counsel as before.

Counsel for complainants files with the master certain exceptions to the master's draft report, which are marked by the master "Complainants' exceptions to master's draft report, S. A. B., master," and requests the master to modify his draft report in accordance with said exceptions.

Counsel for defendants also makes the following suggestions concerning said draft report, viz:

The defendants suggests that the master's findings of fact be amended to show that there is no data before him by means of which he may determine what proportion of the defendants' business profits as found by him are chargeable to the patent.

233 The defendants further suggests that the nineteenth finding of fact is erroneous in finding that the core and cover are useless except when continuously cemented, inasmuch as the testimony shows that continuous cementation is not essential, but that cementation at the ends may be employed in the production of a useful and salable crimper; wherefore the invention cov-

ered by the patent must relate solely to continuous cementation, and the question of gains chargeable to the patent must hinge solely upon the question of continuous cementation as distinguished from end cementation or from any other method of securing the braid and core together. As nothing is offered to guide the master in determining just what gain is chargeable to continuous cementation, it is submitted that he has no means of measusing the damages.

After hearing argument of counsel for both parties respecting said exceptions and suggestions in reference to said draft report, the master reserves his decision on the same.

March 18th, 1889.

The master declines to amend his draft report in accordance with the suggestions of counsel for defendants. The master declines to change the sixteenth finding of fact herein as suggested in the first exception filed by counsel for complainants.

The master amends the draft report by striking therefrom the seventeenth finding of fact, which read as follows, viz: "That there is no positive or satisfactory proof that the complainants or their associates and successors or the Philadelphia Novelty Manufact-
234 uring Company would have sold a larger number of the hair-
crimpers manufactured under complainants' said letters patent than they did manufacture and sell had the defendants not purchased the said infringing hair-crimpers," and in this regard sustains the second exception filed by counsel for complainants, but in so doing strikes out the said seventeenth finding as immaterial in view of the conclusion arrived at by him in his report as filed and does not intend to find the reverse of said seventeenth finding of fact.

The master also amends the draft report by striking therefrom the first conclusion of law, which was as follows, viz: "That the complainants have failed to prove what damages they have sustained in consequence of the infringement and violation by the defendants of the exclusive rights of the complainants under and by virtue of said letters patent of the United States No. 218,300, dated August 5th, 1879, and I am therefore unable to find and report that the complainants have sustained more than nominal damages therefrom, amounting to the sum of six (6) cents, which sum I do find and report to have been sustained by them," and in that regard sustains the third exception filed by counsel for complainants, but in so doing the master does not find as requested to find by said third exception nor otherwise as conclusions of law than as found in his report as filed herein.

The master signs his report herein, which as signed is in all respects similar to the draft report served on the counsel for
235 the respective parties hereto, with the following exceptions, viz:

1. In the twelfth finding of fact in said draft report he inserts the following words and figures: "That during the year 1882, prior to the purchase by the defendants of any of the said infringing hair-crimpers, the defendants purchased of the complainants and their associates or successors 137 great gross of their short hair-

crimpers and 29 great gross of their long hair-crimpers, and in the year 1883, also prior to the purchase by the defendants of any of said infringing hair-crimpers, the defendants purchased of the complainants and their associates or successors 215 great gross of their short hair-crimpers and 43 great gross of their long hair-crimpers.

That during the year 1884, in which year the defendants first began to deal in the infringing hair-crimpers, they purchased from the complainants and their associates or successors 92 great gross of their short hair-crimpers and 24 great gross of their long hair-crimpers, and in the year 1885, up to and including the month of March, with which month the defendants ceased using the infringing hair-crimpers, they did not purchase from the complainants, their associates or successors, any of their hair-crimpers."

2. In the thirteenth finding of fact in said draft report he inserts the following words, viz: "But were inferior in quality to the complainants' hair-crimpers."

3. Strikes out the following words, which were at the end of the sixteenth finding of fact in said draft report, viz: "Or that 236 they would have continued to deal with them in such hair-crimpers to the extent to which they had been accustomed to deal."

4. Strikes out of said draft report the seventeenth finding of fact as hereinbefore stated, and substitutes therefor under the same number the finding of fact found in the report as filed.

5. Strikes out the first conclusion of law in said draft report as hereinbefore stated, and substitutes therefor the first and second conclusions of law as found in the report as filed; changes the number of the conclusion of law numbered second in said draft report to "third" as in said report as filed, and strikes from the end of said second conclusion of law in said draft report the words "together with interest thereon at the rate of six per centum per annum from the 30th day of March, 1885, to the date of this report, which interest amounts to the sum of — dollars and — cents, making a total of net gains and profits at the date of this report of — dollars and — cents ($—)."

The master also files with his report his opinion herein.

237 United States Circuit Court, Southern District of New York.
In Equity.

CHRISTIAN H. HERSHEY *et al.*
vs.
HOWARD M. GILES *et al.*
} Master's Certificate.

I, Samuel A. Blatchford, the master appointed herein by the interlocutory decree dated April 17th, 1885, do hereby certify that on the several days named in the depositions and minutes of testimony hereto annexed, comprising 43 pages 82 folios, I was attended at my office, room 19 on the fifth floor of No. 16 Exchange place, in the city of New York, by the counsel for the respective parties hereto and by Howard M. Giles and Isaac W. Heysinger, the witnesses named in the testimony, who were the only witnesses produced on behalf of any party to these proceedings, and they were called and examined on behalf of the complainants; that the said witnesses were each duly sworn and examined before proceeding to testify, and the signing of their testimony by the respective witnesses was duly waived by counsel for the respective parties.

I further certify that the foregoing minutes contain a full, true, and complete record of all the evidence taken in the proceedings had before me as master herein.

238 I further certify that the foregoing exhibits which are hereto annexed were introduced in evidence before me on the hearings before me and were the only exhibits introduced in evidence and used by me in making up my report herein except such exhibits and testimony as were used and taken on the trial in this cause; that said exhibits so introduced in evidence before me are hereto annexed and marked as follows, viz:

"Complainants' Exhibit Master's Order."
"Complainants' Exhibit Notice to Account."
"Defendant-' Exhibit Accounts."
"Complainants' Exhibit Cook & Valentine Account."
"Complainants' Exhibit Heysinger Affidavit."
"Complainants' Hair-crimpers."
"Infringing Hair-crimpers."

I also certify that the paper hereto annexed, marked "Complainants' Exceptions to Master's Report, S. A. B., master," were the only written objections and exceptions filed with me to said draft report by any party to the proceedings before me.

Dated New York, March 18th, 1889.

SAMUEL A. BLATCHFORD, *Master*.

239 Endorsed: U. S. C. C., S. D. N. Y. Christian H. Hershey *et al. vs.* Howard M. Giles *et al.* Stenographer's transcript. Minutes of testimony and certificates. Samuel A. Blatchford, master, 16 Exchange place, N. Y. U. S. circuit court. Filed Mar. 18, 1889. John A. Shields, clerk.

240 Circuit Court of the United States for the Southern District of New York. In Equity.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER, Complainants, *vs.* HOWARD M. GILES, ELBRIDGE G. BROWN, Robert M. Cugle, and Isaac P. Smith, Trading as Noyes, Smith & Co., Defendants.	Master's Report.

To the honorable the judges of the circuit court of the United States for the southern district of New York:

I, Samuel A. Blatchford, the master appointed by the interlocutory decree herein, dated the 17th day of April, 1885, to compute, ascertain, and assess the gains and profits made and received by the defendants in consequence of the infringement and violation by the defendants of the exclusive rights of the complainants under and by virtue of the letters patent of the United States No. 218,300, dated August 5th, 1879, issued to Christian H. Hershey and John L. Heysinger, assignee, &c., for improvement in hair-crimpers, together with the damages the said complainants have sustained thereby, and to take the proofs thereon and report tne same to this court, do respectfully report as follows:

241 I have been attended by Joshua Pusey, Esq., of counsel for complainants, and George D. Seymour, Esq., of counsel for defendants, and I have taken the proofs presented before me on behalf of the complainants, no proof being presented on behalf of the defendants, as the same appears accompanying this report, and I have examined the testimony and exhibits of both parties on the trial of the issues in this cause, and I find from such proof as follows:

Findings of Fact.

First. That in and by the interlocutory decree herein it is found that the defendants have infringed the letters patent of the United States No. 218,300, dated August 5th, 1879, issued to Christian H. Hershey and John L. Heysinger, assignee, &c., by selling hair-crimpers containing or embodying the invention described in said letters patent, and said defendants are restrained and enjoined from making, using, and selling, or causing to be made, used, or sold, hair-crimpers embracing or embodying the invention described in said letters patent and claimed in and by the first claim thereof, which claim only is stated in and by said interlocutory decree to have been considered by the court.

Second. That the first claim of said letters patent is as follows, viz:

242 1. A hair-crimper consisting of the non-elastic metallic core C and braided covering A, said covering A being cemented to said core C throughout its entire length, substantially as described.

Third. That the hair-crimpers described in said letters patent were invented by the complainant Christian H. Hershey and one William Mills, jointly, in the beginning of the year 1877, and at the time of the application for said letters patent said Mills assigned his interest therein to said Christian H. Hershey, who at the same time assigned one-quarter of his interest in said letters patent to the complainant John L. Heysinger.

Fourth. That the manufacture of the hair-crimpers covered by said letters patent was begun in the spring of 1877 at Philadelphia, in the State of Pennsylvania, by the complainants herein, who carried on their business as copartners at Philadelphia under the name of the Philadelphia Novelty Manufacturing Company.

Fifth. That one Isaac W. Heysinger thereafter became a partner in said firm; that said Christian H. Hershey died September 30th, 1884, after this action had been begun, and his interest in said firm was purchased by the surviving partners, who continued the manufacture of said hair-crimpers, and that the said copartnership was in February, 1885, converted into a joint stock company under the name of the Philadelphia Novelty Manufacturing Company, which purchased all the interest of the preceding firm in said hair-crimpers, and has ever since continued and still continues the manufacture thereof.

243 Sixth. That the said complainants and their successors and associates in the manufacture of said hair-crimpers have always retained and the present Philadelphia Novelty Manufacturing Company has always retained and still retains a close monopoly of the manufacture and sale of said hair-crimpers.

Seventh. That the said complainants and their successors and the present Philadelphia Novelty Manufacturing Company manufactured said hair-crimpers in two sizes, viz., a long size capable of being divided into pieces of different lengths, each of which could be used as a hair-crimper when so divided, and also a shorter size, such as is ordinarily used of itself as a crimper without being divided, and I annex hereto and file herewith a specimen of the hair-crimpers so manufactured under said letters patent, marked "Complainants' Hair-crimpers," this specimen being of the long size, the short size differing from them in length only and not in substantial structure.

Eighth. That the defendants Howard M. Giles, Elbridge G. Brown, Robert M. Cugle, and Isaac P. Smith have been between the 30th day of June, 1881, and the date of this report and are still copartners in trade and doing business in the city of New York under the firm name or style of Noyes, Smith & Company as commission merchants doing a general notion business.

244 Ninth. That the said defendants between the 30th day of June, 1881, and the 11th day of October, 1884, purchased of the complainants and their successors and associates as aforesaid and the said Philadelphia Novelty Manufacturing Company four hundred and ninety-one (491) great gross of the short hair-crimpers manufactured by them under said letters patent, and one hundred and fourteen (114) great gross of the long hair-crimpers so manufactured by them, making six hundred and five (605) great gross of both sizes of said hair-crimpers.

Tenth. That the said defendants between the 17th day of January, 1884, and the 30th day of March, 1885, both inclusive, have sold six hundred and fifty-four and nine-twelfths ($654\frac{9}{12}$) great gross of hair-crimpers of a short and long size and similar in length to the hair-crimpers manufactured by the complainants and their successors and associates and by the Philadelphia Novelty Manufacturing Company and which were purchased from and manufactured by one Gilbert A. Blakesley, of Bristol, Connecticut, and which said hair-crimpers contained and embodied the invention described in the letters patent of the United States No. 218,300, dated August 5th, 1879, issued to Christian H. Hershey and John L. Heysinger, assignee, &c., and were an infringement of the first claim of said letters patent, and a specimen of said infringing hair-crimpers is hereto annexed and filed herewith, marked "infringing hair-crimpers," this specimen being of the short size of said hair-crimpers, the long size differing from them in length alone and not in substantial structure. 245

Eleventh. That said defendants purchased said infringing hair-crimpers for the sum of nine hundred and fifty-six dollars and sixty cents ($956.60), and sold the same for the sum of eleven hundred and fifty-four dollars and fifteen cents ($1,154.15).

Twelfth. That after the defendants began to deal in the infringing hair-crimpers on or about the 17th day of June, 1884, the purchases by them from the complainants and their successors, the Philadelphia Novelty Manufacturing Company, of the hair-crimpers manufactured under the complainants' said letters patent were smaller than they had been for the year 1883, prior to the purchase of said infringing hair-crimpers, by one hundred and forty-two (142) great gross, and subsequent to the month of October, 1884, the said purchases of complainants' hair-crimpers by said defendants stopped entirely, this suit being then pending, and the defendants continued purchasing the said infringing hair-crimpers after the month of October, 1884, until April 1st, 1885, shortly prior to the entry of the interlocutory decree and injunction herein.

That during the year 1882, prior to the purchase by the defendants of any of the said infringing hair-crimpers, the defendants purchased of the complainants and their associates and successors 137 great gross of their short hair-crimpers and 29 great gross of their long hair-crimpers, and in the year 1883, also prior to the purchase by the defendants of any of said infringing hair-crimpers, the defendants purchased of the complainants and their associates or successors 215 great gross of their short hair-crimpers and 43 great gross of their long hair-crimpers. 246

That during the year 1884, in which year the defendants first began to deal in the infringing hair-crimpers, they purchased from the complainants and their associates or successors 92 great gross of their short hair-crimpers and 24 great gross of their long hair-crimpers, and in the year 1885, up to and including the month of March, with which month the defendant- ceased using the infringing hair-crimpers, they did not purchase from the complainants, their associates or successors, any of their hair-crimpers.

That the following table shows the number of great gross of hair-crimpers, both of complainants' make under said letters patent and said infringing hair-crimpers, purchased and sold by the defendants in every month when any were purchased and sold between June, 1881, and March, 1885, both inclusive:

	Complainants' crimpers, short.	Infringing crimpers, short.	Complainants' crimpers, long.	Infringing crimpers, long.
	No. of great gross.	No. of great gross.	No. of great gross.	No. of great gross.
1881.				
June	$7\frac{11}{12}$	....	1	
July	10	....	5	
October.....	$17\frac{1}{12}$	....	9	
November...	12	....	3	
1882.				
January.....	2			
Forward	49	....	18	
247				
Bro't forward	49	....	18	
April	57	....	21	
June	30			
November...	44	....	8	
December...	4			
1883.				
March	37	....	12	
May	27	....	9	
July	35	....	3	
October.....	73	....	19	
November...	43			
1884.				
January	4	$23\frac{6}{12}$	....	$6\frac{6}{12}$
February....	19	$8\frac{6}{12}$	10	$8\frac{6}{12}$
April	50	....	3	
May	....	$38\frac{6}{12}$	....	7
June	....	$123\frac{6}{12}$	....	$38\frac{3}{12}$
July	12	75	11	28
August	3	$17\frac{4}{12}$	....	$9\frac{8}{12}$
September ..	....	$19\frac{6}{12}$		
October.....	4	$6\frac{11}{12}$		
November ..	....	1		
December...	....	4	....	1
1885.				
January.....	....	126	....	69
February....	....	$31\frac{1}{12}$	....	1
March	....	11		
	491	$485\frac{10}{12}$	114	$168\frac{11}{12}$

Total great gross of complainants' hair-crimpers..................... 605
Total great gross of infringing hair-crimpers......................... $654\frac{9}{12}$

Thirteenth. That the said infringing hair-crimpers undersold the complainants' hair-crimpers in the market, the wholesale selling price of the same being less, but were inferior in quality to the complainants' hair-crimpers.

Fourteenth. That at all the times of the purchases by the defendants of the said infringing hair-crimpers the complainants or their associates and successors or the said Philadelphia Novelty Manufacturing Company were able to produce many more of said hair-

crimpers than they were then producing and to supply all
248 demands that might be made on them for said hair-crimpers
and to an amount equal to and greater than the amount of
infringing hair-crimpers purchased and sold by the defendants.

Fifteenth. That the Philadelphia Novelty Manufacturing Company were at the time the defendants were purchasing and selling the said infringing hair-crimpers selling the hair-crimpers manufactured under the letters patent issued to the complainants to other firms in the city of New York than the defendants' firm of Noyes, Smith & Co.

Sixteenth. That there is no positive or satisfactory proof in the case that had the defendants not purchased the six hundred and fifty-four and nine-twelfths ($654\frac{9}{12}$) great gross of the infringing hair crimpers as found by the tenth finding of fact herein they would have purchased an equal number of hair-crimpers manufactured under the said letters patent of the United States issued to the complainants.

Seventeenth. That at the times the defendants were purchasing and selling the said infringing hair-crimpers the complainants and their associates or successors or the Philadelphia Novelty Manufacturing Company were making a profit upon the hair-crimpers manufactured and sold by them under the letters patent issued to the complanants of one dollar and fifty cents ($1.50) on each great
gross of the long hair-crimpers and of one dollar ($1.00) upon
249 each great gross of the short hair-crimpers.

Eighteenth. That between the 30th day of June, 1881, when the first sales of the complainants' hair-crimpers were made to the defendants, until the 1st day of April, 1885, when the defendants ceased selling the said infringing hair-crimpers, there were no other hair-crimpers on the market similar to or for a like purpose or use as the complainants' hair-crimpers and consisting of the combination described in the first claim of the letters patent of the United States 218,300, issued on the 5th day of August, 1879, except the said infringing hair-crimpers which were placed upon the market about the 1st day of January, 1884.

Nineteenth. That the core or strip of the complainants' hair-crimpers is practically useless as a hair-crimper and unsalable in the market without the braided covering thereof, and the said braided covering alone is also useless and unsaleable in the market as a hair-crimper, and so also are said core and said covering together unless the said braided covering be cemented to said core throughout its entire length.

Twentieth. That the gross profit made by the defendants on the sale of the $654\frac{9}{12}$ great gross of infringing hair-crimpers sold by them, as found by the tenth finding of fact herein, was the difference between the price at which they were purchased and the price
for which they were sold, as found by the eleventh finding
250 of fact herein, which said difference is the sum of one hundred and ninety-seven dollars and fifty-five cents ($197.55).

Twenty-first. That the usual commission allowed in the trade for the cost of selling on goods of a similar character is five (5) per cent., and that five (5) per cent. on said sum of one thousand one hundred and fifty-four dollars and fifteen cents ($1,154.15), the gross selling price by the defendants of said infringing hair-crimpers, amounts to the sum of fifty-seven dollars and seventy cents ($57.70).

Conclusions of Law.

First. That the complainants have failed to prove that they or their associates or successors would have sold to the defendants during the period of the purchase by the defendants of the infringing hair-crimpers, viz., during the years 1884 and the first three months of 1885, hair-crimpers manufactured by them under and by virtue of said letters patent of the United States No. 218,300, dated August 5th, 1879, equal in number to the infringing hair-crimpers purchased and sold by the defendants during said period, viz., $485\frac{10}{12}$ great gross of short hair-crimpers and $168\frac{11}{12}$ great gross of long hair-crimpers, had the defendants not purchased and sold during said period said infringing hair-crimpers, and no inference is to be drawn from the proofs herein that the defendants would
have purchased during said period from said complainants
251 or their associates or successors the same number of the com-
plainants' hair-crimpers as they had purchased of the infringing hair-crimpers had they not purchased the latter.

Second. That had not the defendants purchased during the year 1884 and the first three months of 1885 the infringing hair-crimpers which were purchased and sold by them it may fairly be assumed, upon all the facts heretofore found herein and upon the testimony herein, that they would have purchased from the complainants or their associates or successors during the year 1884, during which year the defendants first purchased and sold the infringing hair-crimpers, as many of the complainants' hair-crimpers as they purchased during the year 1883, viz., 215 great gross of their short hair-crimpers and 43 great gross of their long hair-crimpers, and that they would also have purchased a proportionate amount thereof for the first three months of 1885, viz., $53\frac{3}{4}$ great gross of the complainants' short hair-crimpers and $10\frac{3}{4}$ great gross of their long hair-crimpers, and I therefore find and report that the complainants and their associates or successors have sustained damages in consequence of the infringement and violation by the defendants of the exclusive rights of the complainants under and by virtue of the letters patent of the United States No. 218,300, dated August 5th, 1879, as follows, viz:

1. Arising from the loss of the sale by them to the defend-
252 ants of their short hair-crimpers during the year 1884, of one
hundred and twenty-three dollars ($123.00), the amount being arrived at by deducting from the aforesaid 215 great gross of complainants' short hair-crimpers whose sale the complainants lost the 92 great gross of their short hair-crimpers heretofore and in the twelfth finding of fact herein found to have been actually purchased by the defendants during the year 1884, leaving 123 great gross of short hair-crimpers on which, if sold, the complainants would have

made a profit of one dollar ($1.00) on each great gross, or $123.00 altogether.

2. Arising from the loss of the sale by them to the defendants of their long hair-crimpers during the year 1884 of twenty-eight dollars and fifty cents ($28.50), the amount being arrived at by deducting from the aforesaid 43 great gross of complainants' long hair-crimpers whose sale the complainant lost the 24 great gross of their long hair-crimpers heretofore and in the twelfth finding of fact herein found to have been actually purchased by the defendants during the year 1884, leaving 19 great gross of said long hair-crimpers on which, if sold, the complainants would have made a profit of $1.50 on each great gross, or $28.50 altogether.

3. Arising from the loss of the sale by them to the defendants of their short hair-crimpers during the first three months of 1885 of fifty-three dollars and seventy-five cents ($53.75), the amount being arrived at by multiplying the 53¾ great gross of the complainants'
short hair-crimpers whose sale they lost during said period
253 by $1.00, the profit the complainants would have made on
each of said great gross had they sold the same.

4. Arising from the loss of the sale by them to the defendants of their long hair-crimpers during the first three months of 1885 of fifteen dollars and seventy-five cents ($15.75), the amount being arrived at by multiplying the 10¾ great gross of the complainants' long hair-crimpers whose sale they lost during the said period by $1.50, the profit the complainants would have made on each of said great gross had they sold the same. I therefore find and report as the total amount of the damages sustained by the complainants as found by this second conclusion of law the sum of two hundred and twenty-one dollars ($221.00).

Third. That the profits and gains made and received by the defendants in consequence of the infringement and violation by them of the exclusive rights of the complainants under said letters patent No. 218,300 are represented by the difference between the gross purchase price and the gross selling price of said infringing hair-crimpers, which is the sum of one hundred and ninety-seven dollars and fifty-five cents ($197.55) less the cost of selling the same, which amounts to the sum of fifty-seven dollars and seventy cents ($57.70), making the net gains and profits so received by the defendants in consequence of the said infringement and sale by them of the said
infringing hair-crimpers, and which I hereby find and re-
254 port, the sum of one hundred and thirty-nine dollars and
eighty-five cents ($139.85).

All of which is respectfully submitted.

Dated New York, March 18th, 1889.

SAMUEL A. BLATCHFORD, *Master.*

255 Circuit Court of the United States for the Southern District of New York. In Equity.

CHRISTIAN H. HERSHEY and Another
vs.
HOWARD M. GILES *et al.*
} Master's Opinion.

SAMUEL A. BLATCHFORD, *Master:*

I have examined with care the testimony herein and the briefs both on the hearing before I prepared my draft report and on the hearing subsequent thereto. I am satisfied on the question of damages that the complainants have not shown by satisfactory evidence that the defendants would have purchased of the complainants as many of the complainants' hair-crimpers, both short and long, as they purchased of the defendants' infringing hair-crimpers during 1884 and the first three months of 1885 had they not purchased the infringing hair-crimpers. The infringing hair-crimpers were sold at a less cost, and there appears to have been other dealers in the complainants' hair-crimpers in New York, and for each additional dealer in the same the chance of any one dealer purchasing in any one year more hair-crimpers than was purchased during the previous year is lessened unless it is also shown that the general demand for the particular hair-crimpers is largely and steadily increased, which is not shown in this case. I do not think the con-
256 ceded superiority of complainants' crimpers is sufficient to overcome the difference in price. If it were it is reasonable to suppose that the defendants would have themselves purchased the complainants' crimpers in preference to the infringing crimpers. This they did not do. To find damages for the complainants on the basis of calculation asserted by the complainants would be to find, not what the complainants actually did lose, but what they speculatively might have lost, which is not the correct rule in ascertaining damages in a case like this. (Buerk *v.* Imhauser, 14 Blatch., 19; Hall *v.* Stern, 20 Fed. Rep., 788.) Under the latter case, however, I do not think that there is a fair and reasonable presumption that had the infringing hair-crimpers not been in the market the defendants would have purchased of the complainants their hair-crimpers in 1884 and the first three months of 1885 to an amount equal to their purchases of them in 1883 before they dealt in the infringing hair-crimpers. To this extent I deem it proper to allow damages.

The profits which the defendants made are the difference between the purchase and the selling price of the infringing crimper, less the usual trade allowance or percentage for selling similar goods.

The only claim considered by the court in this case was the first claim of the patent, and I think the testimony shows that the component parts of the complainants' hair-crimpers have none of them a marketable value as hair-crimpers without the continued
257 cementation of the braid to the core, which is the important element of that claim.

Upon the testimony in this case, and which alone I can consider, the infringing hair-crimpers appear to have been the only hair-crimpers on the market of a similar character possessing the peculiar characteristics of the complainants' crimpers and having a marketable character.

Endorsed: C. C. U. S., S. D. N. Y. Christian H. Hershey and ano., complainants, against Howard M. Giles *et al.*, defendants. Master's report. Samuel A. Blatchford, master, 16 Exchange place, Post building, New York. U. S. circuit court. Filed Mar. 18, 1889. John A. Shields, clerk.

258 United States Circuit Court, Southern District of New York.
In Equity.

CHRISTIAN H. HERSHEY *et al.*
vs.
HOWARD M. GILES *et al.*

Complainants' Exceptions to the Master's Report.

The complainants except to the master's report:

1. For that the master erred as to the 16th finding of fact: "That there is no positive or satisfactory proof in the case that had the defendants not purchased the six hundred and fifty-four and nine-twelfths ($654\frac{9}{12}$) great gross of the infringing hair-crimpers as found by the tenth finding of fact herein they would have purchased an equal number of the hair-crimpers manufactured under the said letters patent of the United States issued to the complainants, or that they would have continued to deal with them in such hair-crimpers to the extent to which they had been accustomed to deal."

Whereas the evidence and the statement attached to the report shows that the sales to the defendants of the complainants, both long and short crimpers, increased in a certain ratio during the two
entire years of 1882 and 1883, preceding the time the defend-
259 ants began to sell the infringing crimpers, and the number
of such infringing crimpers subsequently sold by defendants
in the years 1884 and 1885, up to and including March, 1885, was substantially equal to a continuation of the ratio of increase of sales by the defendants of the complainants' crimpers. Wherefore it was shown as clearly as it is possible to show the same that the defendants would have sold the same number of the complainants' crimpers that they did of the infringing crimpers.

2. For that the master erred as to the 17th finding of fact: "That there is no positive or satisfactory proof that the complainants or their associates and successors or the Philadelphia Novelty Manufacturing Company would have sold a larger number of the hair-crimpers manufactured under complainants' said letters patent than they did manufacture and sell had the defendants not purchased the said infringing hair-crimpers.

3. For that the master erred as to the first conclusion of law: "That the complainants have failed to prove what damages they have sustained in consequence of the infringement and violation by

the defendants of the exclusive rights of the complainants under and by virtue of said letters patent of the United States No. 218,300, dated August 5, 1879," and in finding that the complainants have sustained but six (6) cents damages in consequence of said infringement.

260 Whereas the master should have found, in view of the testimony for complainants and the exhibits, that the complainants have sustained damages amounting to seven hundred and thirty-nine $\frac{20}{100}$ dollars ($739.20)—that is, one dollar ($1.00) per great gross on four hundred and eighty-five $\frac{10}{12}$ (485$\frac{10}{12}$) great gross of short crimpers ($485.83) and one dollar and fifty cents ($1.50) per great gross on one hundred and sixty-eight $\frac{11}{12}$ (168$\frac{11}{12}$) great gross of long crimpers ($253.37), being the number of infringing crimpers sold by the defendants and the number of complainants' crimpers that they would have sold in the same time had they not sold the said infringing crimpers.

JOSHUA PUSEY,
Solicitor and of Counsel for Complainants.

Endorsed: Circuit court of the U. S., southern dist. of New York. In equity. Hershey *et al. vs.* Giles *et al.* Complainants' exceptions to the master's report. S. A. B., master. Joshua Pusey, counsel for complainants. U. S. circuit court. Filed Mar. 18, 1889. John A. Shields, clerk.

261 United States Circuit Court, Southern District of New York.

Hershey *et al.*
v.
Giles *et al.*
} In Equity.

The defendants except to the report and to the refusal to find as requested by the defendants of Samuel A. Blatchford, one of the masters of this court, to whom the accounting herein was referred by an order of this court made and entered, said report being dated and filed March 18, 1889.

First exception. For that the said master in his reports in the 19th finding of fact erroneously finds that the core and cover are useless unless continuously cemented.

Second exception. For that the said master in his report does not find as requested by the defendant that continuous cementation is not essential, but that cementation at the ends may be employed as in the production of a useful and salable crimper.

Third exception. For that the master did not find that there is no data before him by means of which he may determine what proportion of the defendants' business profits, as found by him, are chargeable to the patent.

262 Fourth exception. For that the master did not find as requested that the gains chargeable to the patent must hinge solely upon the question of continuous cementation as distinguished

from end cementation or from any other method of securing the braid and core together.

Bristol, April 17, 1889.

JOHN J. JENNINGS,
Counsel for Defendants.

Endorsed: U. S. circuit court. Filed Apr. 18, 1889. John A. Shields, clerk.

June 28, 1889.—Exceptions to master's report are overruled with costs, and his report is adopted. WM. J. WALLACE.

263 Circuit Court of the United States, Southern District of New York. In Equity.

CHRISTIAN H. HERSHEY *et al.*
vs.
HOWARD M. GILES, ELBRIDGE G. Brown, Robert M. Cugle, and Isaac P. Smith. Trading as Noyes, Smith & Company.
} April Sessions, 1884. No. —.

Final Decree.

This cause having come on to be heard upon exceptions to the reports filed by Samuel A. Blatchford, Esq., the master appointed by the court's interlocutory decree, entered the 17th day of April, A. D. 1885, and the exceptions to said report having been argued by the counsel for defendants and complainants respectively, after due consideration thereof, it is ordered, adjudged, and decreed that the said exceptions be dismissed and the findings of the master sustained.

And it is further adjudged and decreed that the damages suffered by complainants in consequence of the unlawful sale by defendants of hair-crimpers infringing the letters patent No. 218,300, dated August 5, 1879, for improvement in hair-crimpers, mentioned in said interlocutory decree, together with the profits made 264 by the defendants by such infringement, amount to the sum of three hundred and sixty dollars and eighty-five cents ($360.85).

And it is further ordered, adjudged, and decreed that the complainants do recover of the defendants the said sum of three hundred and sixty dollars and eighty-five cents ($360.85), together with the costs of this suit, to be taxed at three hundred and fourteen dollars and forty-five cents ($314.45), making in the aggregate the sum of six hundred and seventy-five dollars and thirty cents ($675.30), and that the complainants have execution therefor.

And it is further ordered, adjudged, and decreed that the injunction heretofore ordered and issued against the said defendants be made perpetual. WM. J. WALLACE.

Consented that complainants may file the above decree.

JOHN J. JENNINGS,
Counsel for Defendants.

Endorsed: Circuit court of the United States, southern dist. of New York. In equity. Hershey *et al. vs.* Giles *et al.* Final decree. J. Pusey, sol'r for complainants. U. S. circuit court. Filed Oct. 22, 1889. John A. Shields, clerk.

265 Circuit Court of the United States for the Southern District of New York.

JOHN L. HEYSINGER and THE UNION TRUST COMPANY, Administrators of the Estate of Christian H. Hershey, Deceased, Complainants and Appellees, *vs.* HOWARD M. GILES, ELBRIDGE G. BROWN, Robert M. Cugle, and Isaac P. Smith, Trading as Noyes, Smith and Company, Defendants and Appellants.	In Equity. No. 3015.

It is hereby stipulated and agreed by and between the solicitors for the respective parties to the above-entitled suit that the foregoing, with the exhibits in the cause, may constitute the record on appeal to the Supreme Court of the United States.

Dated June 2nd, 1890.

JOSHUA PUSEY,
Complainants' Solicitor.
JOHN J. JENNINGS,
Defendants' Solicitor.

Endorsed: Circuit court of the United States for the southern district of New York. John L. Heysinger *et al. vs.* Howard M. Giles *et al.* Stipulation as to record on appeal to the Supreme Court U. S. U. S. circuit court. Filed June 12, 1890. John A. Shields, clerk.

266 Circuit Court of the United States for the Southern District of New York.

JOHN L. HEYSINGER and THE UNION TRUST COMPANY, Administrators of the Estate of Christian H. Hershey, Deceased, Complainants and Appellees, *vs.* HOWARD M. GILES, ELBRIDGE G. BROWN, Robert M. Cugle, and Isaac P. Smith, Trading as Noyes, Smith and Company, Defendants and Appellants.	In Equity. No. 3015.

It is hereby stipulated and agreed by and between the solicitors for the respective parties to the above-entitled suit that the exhibits filed in said suit may be retained by the clerk of this court until the argument of said suit in the Supreme Court of the United States.

Dated June 2nd, 1890.

JOSHUA PUSEY,
Complainants' Solicitor.
JOHN J. JENNINGS,
Defendants' Solicitor.

Endorsed: Circuit court of the United States for the southern district of New York. John L. Heysinger *et al.* *vs.* Howard M. Giles *et al.* Stipulation that exhibits be retained on file until argument in Supreme Court U. S. U. S. circuit court. Filed June 12, 1890. John A. Shields, clerk.

267 Know all men by these presents that we, Howard M. Giles, Elbridge G. Brown, Robert M. Cugle, and Isaac P. Smith, trading at the city, county, and State of New York as Noyes, Smith & Company, as principal-, and Gilbert H. Blakesley, S. Emerson Root, Edward D. Dunbar, Walter A. Ingraham, Irving Ingraham, Elisha S. Hollister, and Fayette Hills, all of the town of Bristol, in the county of Hartford and State of Connecticut, as sureties, are firmly held and bound unto John L. Heysinger and The Union Trust Company, administrator of the estate of Christian H. Hershey, deceased, both of Philadelphia, in the State of Pennsylvania, complainants in the suit hereinafter mentioned, in the sum of fourteen hundred dollars; to the payment of which we bind ourselves, our heirs and executors.

Witness our hands and seals, at Bristol, Connecticut, this 23rd day of December, 1889.

The condition of this bond is such that whereas the said Giles, Brown, Cugle, and Smith, forming the copartnership of Noyes, Smith & Company, have appealed from the final judgment and decree of the circuit court of the United States in and for the southern district of New York lately made and entered in the case of said complainants against said Giles, Brown, Cugle, and Smith aforesaid, defendants therein, to the Supreme Court of the United States to be held at Washington on the second Monday of October, 1890:

Now, if the said obligers shall cause the record of the said
268 appealed cause to be duly entered in said Supreme Court on
or before said opening day, and shall duly cause an appearance to be made therein for said defendants to prosecute the same, and shall answer all costs and damages to the said complainants in case they shall fail to prosecute said appeal to effect and make their plea good therein, then this bond shall be valid and binding in law; otherwise to be void and of no effect.

NOYES, SMITH & CO.,
By HOWARD M. GILES. [L. S.]
GILBERT H. BLAKESLEY. [L. S.]
S. EMERSON ROOT. [L. S.]
EDWARD B. DUNBAR. [L. S.]
ELISHA S. HOLLISTER. [L. S.]
W. A. INGRAHAM. [L. S.]
IRVING INGRAHAM. [L. S.]
FAYETTE HILLS. [L. S.]

The foregoing bond is approved as to form and sufficiency of security.

JOSHUA PUSEY,
Of Counsel for Complainants.

Jan'y 1st, 1890.

Endorsed: Cir. c't U. S., southern dist. N. Y. Hershey *et al. v.* Giles *et al.* Bond on appeal to Supreme C't. Approved as to form and sufficiency of sureties. Dec. 27, 1889. E. Henry Lacombe. U. S. circuit court. Filed Jan. 6, 1890. John A. Shields, clerk.

269 STATE OF CONNECTICUT, } *ss:*
County of Hartford, }

Personally appeared before me, a notary public in and for the above county and State, S. Emerson Root, who, being duly sworn, deposes and says that he has been a resident of the town of Bristol fifty years; that he is the same person who has signed as surety the bond for appeal from the circuit court of the U. S. for the southern district of New York in the case of Hershey *et al. v.* Giles *et al.*; that he owns property to the value at least of twenty thousand dollars; that he possesses real estate in said Bristol worth above all incumbrances at least five thousand dollars.

S. EMERSON ROOT.

Sworn to and subscribed before me December 25th, 1889.

ROGER S. NEWELL,
Notary Public.

270 STATE OF CONNECTICUT, } *ss:*
County of Hartford, }

Personally appeared before me, a notary public in and for the said county and State, Edward B. Dunbar, of Bristol, in said county and State, who, being duly sworn, deposes and says—

That he has been a resident of said Bristol for forty years; that he owns property in his own right to the value of at least five thousand dollars.

That he owns real estate worth above all incumbrance at least twelve thousand dollars.

That he is the same person who has signed as surety the bond in Hershey *et al. v.* Giles *et al.* for appeal to Supreme Court of the United States from the circuit court of the U. S. for southern district of New York.

EDWARD B. DUNBAR.

Sworn to and subscribed before me December 25th, 1889.

[SEAL.] ROGER S. NEWELL,
Notary Public.

271 STATE OF CONNECTICUT, } *ss:*
County of Hartford, }

Personally appeared before me, a notary public in and for said county and State, John J. Jennings, of counsel in the case of Hershey *et al. v.* Giles *et al.*, in circuit court of the U. S. for the southern district of N. Y., who, being duly sworn, deposes and says that he has been a resident of the town of Bristol for some eleven years; that he has been long well acquainted with Gilbert H. Blakesley, S. Emerson Root, Edward B. Dunbar, Elisha S. Hollister, Irving Ingraham, Walter A. Ingraham, and Fayette Hills, all of said Bristol and sureties on the bond for the appeal to the Supreme Court of the United States of Hershey *et al. v.* Giles; that he has examined the assessment list of said Bristol, and finds that the assessment of the property of said persons for purposes of taxation is $43,860, of which $30,400 is real estate; that, knowing the ratio of assessment value to real value and the property owned by said persons not included in said assesment list, he considers that $100,000 would be a very small estimate of the total worth of their property.

JOHN J. JENNINGS.

Sworn to and subscribed before me Dec. 26th, 1889.

[SEAL.] CHAS. S. TREADWAY,
Notary Public.

272 Endorsed: C. C. U. S., so. dist. N. Y. Hershey *et al. vs.* Giles *et al.* Aff'ts justifying appeal bond. E. B. Dunbar, S. E. Root, J. J. Jennings. U. S. circuit court. Filed Jan. 6, 1890. John A. Shields, clerk.

273 In the Circuit Court of the United States for the Southern District of New York.

CHRISTIAN H. HERSHEY and JOHN L. HEYSINGER
vs.
HOWARD M. GILES, ELBRIDGE G. BROWN, ROBERT M. CUGLE, and ISAAC P. SMITH, Trading as Noyes, Smith & Company.

And now, to wit, December 27th, 1889, the said defendants, Howard M. Giles, Elbridge E. Brown, Robert M. Cugle, and Isaac P. Smith, by John J. Jennings, their counsel, come into court and pray for allowance of appeal to the Supreme Court of the United States from the final decree of the court in the above-entitled cause; which appeal is allowed and bond ordered to be filed in the penal sum of fourteen hundred dollars.

Allowed.
Dec. 27, 1889.

E. H. LACOMBE.

Endorsed: Circuit court of the United States, southern district of New York. Christian H. Hershey *et al. vs.* Howard M. Giles *et al.* Petition of appeal. Due and timely service of a copy of the within appeal is hereby admitted. Dated Jan'y 7, 1890. Joshua Pusey, counsel for complainant-. U. S. circuit court. Filed Jan. 14, 1890. John A. Shields, clerk.

274 By the Hon. E. Henry Lacombe, one of the judges of the circuit court of the United States for the southern district of New York.

Whereas Howard M. Giles, Elbridge G. Brown, Robert M. Cugle, and Isaac P. Smith, trading as Noyes, Smith and Company, have lately appealed to the Supreme Court of the United States from a decree lately rendered in the circuit court of the United States in and for the southern district of New York, made in favor of you, Christian H. Hershey and John L. Heysinger, and *has* filed the security required by law, you are therefore hereby cited to appear before the said Supreme Court, at the city of Washington, District of Columbia, on the second Monday of October, 1890, next, to do and receive what may appertain to justice to be done in the premises.

Given under my hand, at the city of New York, in the southern district of New York, in the second circuit, the 27th day of December, 1889.

E. HENRY LACOMBE.

Endorsed: Circuit court of the United States, southern district of New York. Christian H. Hershey *et al. vs.* Howard M. Giles *et al.* Citation. Due & timely service of a copy of the within citation is hereby admitted. Dated Jan'y 7, 1890. Joshua Pusey, counsel for complainant-. U. S. circuit court. Filed Jan. 14, 1890. John A. Shields, clerk.

275 UNITED STATES OF AMERICA,
Southern District of New York, } *ss:*

I, John A. Shields, clerk of the circuit court of the United States of America for the southern district of New York, in the second circuit, do hereby certify that the foregoing pages, numbered from one to 274, inclusive, contain a true and complete transcript of the record and proceedings had in said court in the case of John L. Heysinger and The Union Trust Company, administrators of the estate of Christian H. Hershey, deceased, complainants and appellees, against Howard M. Giles, Elbridge G. Brown, Robert M. Cugle, and Isaac P. Smith, trading as Noyes, Smith and Company, defendants and appellants, as the same remain of record and on file in said office.

Seal of U. S. Circuit Court,
South. Dist. New York.

In testimony whereof I have caused the seal of the said court to be hereunto affixed, at the city of New York, in the southern district of New York, in the second circuit, this 24th day of July, in the year of our Lord one thousand eight hundred and ninety, and of the Independence of the said United States the one hundred and fifteenth.

JOHN A. SHIELDS, *Clerk.*

Endorsed on cover: Case No. 14,106. S. New York C. C. U. S. No. 152. Howard M. Giles, Elbridge G. Brown, Robert M. Cugle, and Isaac P. Smith, trading as Noyes, Smith & Company, appellant, *vs.* John L. Heysinger and The Union Trust Company, adm'r of the estate of Christian H. Hershey, deceased. Filed August 20, 1890.

Office Supreme Court U. S.
FILED.
DEC 6 1893
JAMES H. McKENNEY,
CLERK.

Supreme Court of the United States.

OCTOBER TERM, 1893.

HOWARD M. GILES et al.,
Appellants.

VS.

JOHN L. HEYSINGER et al.,
Appellees.

Term No. 152.

Appeal from the Circuit Court of the United States for the Second Circuit, Southern District of New York.

BRIEF FOR APPELLANTS.

JOHN J. JENNINGS,
Of Counsel.

HARTFORD, CONN.
PRESS OF THE CASE, LOCKWOOD & BRAINARD COMPANY
1893

Term No. 152.

Supreme Court of the United States.

OCTOBER TERM, 1893.

Case No. 14,106.

HOWARD M. GILES ET AL., *Appellants*,

vs.

JOHN L. HEYSINGER ET AL., *Appellees.*

Brief for Appellant.

STATEMENT.

This suit was brought upon letters patent to William Mills and Christian H. Hershey, No. 218,300, dated August 5, 1879, for an improvement in Hair Crimpers, to the Circuit Court of the United States for the Southern District of New York.

The plaintiffs were John L. Heysinger, a one-fourth assignee of said letters patent, and Christian H. Hershey, the patentee and assignee of the joint inventor, William Mills.

Hershey subsequently died, and, in his behalf, the suit was prosecuted by the administrator of his estate.

The nominal defendants are vendors — merchants doing business in New York city.

The real defendant was and is Gilbert H. Blakesley, the manufacturer of the alleged infringing articles.

The controversy relates to hair crimpers, or a special form of hair crimpers patented by said Mills and Hershey, and secured by the first claim of said letters patent.

The suit was tried before Wallace, *J.*, at the Circuit, and a decree granted sustaining said first claim of said letters patent, and granting a perpetual injunction against the defendants.

The real defendant and manufacturer, Gilbert H. Blakesley, is and was the owner and patentee of inventions relating to hair crimpers, and the alleged infringing hair crimpers were made by him after a method subsequently patented by him, and upheld by decrees of the Court in the same circuit in the districts of Connecticut and the Southern District of New York.

It is respectfully submitted that the decree of the Circuit Court ought to be reversed, because:

(1) The Mills-Hershey patent, so far as the first claim is concerned, the only claim in issue, is void for want of patentable novelty.

(2) The first claim of the Mills-Hershey patent is not infringed.

(3) The Complainants' case is devoid of equity.

(4) Prior public use by Gilbert H. Blakesley more than two years before the application for their patent.

I.

In order better to understand the merits of the case and the situation of the parties, we refer to the opinions in the controversies between them, which are found in the reports.

The bill in the present case was filed March 20, 1884.

The opinion of Judge Wallace was filed April 10, 1885.

On September 6, 1884, these plaintiffs filed a bill in the Circuit Court for the District of Connecticut against Gilbert H. Blakesley, the manufacturer, on this same patent.

After a full hearing, Judge Shipman dismissed the bill, and his opinion, reported in 33 Fed. Rep., 922, is as follows:

> "SHIPMAN, *J.*
>
> "This is a bill in equity founded upon the alleged infringement of Letters Patent No. 218,300, dated August 5, 1879, to William Mills and Christian H. Hershey, for improvements in hair crimpers.
>
> "The article consists, in the language of the patent, 'essentially, of a strip of soft, non-elastic metal, preferably flat, covered with a fibrous coating, cemented thereto so that when cut into proper lengths for use the ends will not fray out, but remain the same into whatever number of pieces the crimper may be divided.'

"The claims are as follows:

"'1. A hair crimper consisting of the non-elastic metallic core C and braided-covering A, said covering A being cemented to said core C throughout its entire length, substantially as described.'

"'2. The process of manufacturing hair crimpers by first flattening soft metal wire between rollers, then covering it with a braided fibrous coating, attached thereto by means of an adhesive substance, and afterwards dividing the material into suitable lengths for hair crimpers, substantially as herein described.'

"The infringing article consists of a brass wire within two strips of paper, the whole covered with a braided covering, the two strips of paper having been passed through a cementing mixture before entering the braider.

"The suit in equity of Hershey *et al.* *vs.* Howard M. Giles and others, in the Circuit Court for the Southern District of New York, which was decided by Judge Wallace on April 10, 1885, involved this patent and the same infringement. In that case the patentability of the invention and the infringement of the patent were not controverted, the defense of prior public use by the present defendant of the patented article for more than two years before the application for a patent being the only defense which was relied upon.

"In that case, as in this, the defendant introduced evidence in regard to the manufacture by Blakesley, in the year 1876, in Bristol, Connecticut, of two kinds of hair crimpers; one by what is now called 'the double cover process,' by which a metallic core, covered first with cotton braid, was passed through a bath of dextrine, and was then covered with a silk braid; the other by what is now called 'the bare metal process,' by which a core of bare metal, having been passed through a bath of dextrine, was then covered with a single coat of braiding.

"Of the use by Blakesley of the double cover process there is no question, but Judge Wallace was of opinion, from an inspection of the exhibits, that there was no appreciable adhesion between the covering and the core, and that the adhesion of the strands together and not their adhesion to the core was the object which Blakesley had in view. Upon this trial anticipation of the invention by the use of this process was not pressed.

"Two witnesses only, Blakesley and Wright, testified in the New York case that the former made crimpers by the 'bare metal process.' This theory, Judge Wallace thought, was refuted 'by the omission of Blakesley and Wright to mention the fact in their affidavits, used to oppose a motion for preliminary injunction in this case. These affidavits purport to give a full history of the manufacture of crimpers by Blakesley, and the omission to state what was so important, if true, is significant. No explanation has been given of the failure to state the facts.'

"The only question which I shall consider is whether the use of this process by Blakesley has been now shown, beyond a fair doubt, by the additional witnesses, and by all the testimony.

"When the motion for preliminary injunction was made in 1884 in the New York case, Wright, the predecessor of Blakesley in the crimper business, remembered the use of the bare metal process in 1876, and told Blakesley and the defendant's counsel of it, but Blakesley did not remember it with any clearness, and could not testify to it.

"The affidavits were, therefore, prepared by counsel, omitting all mention of this method, which intervened, for a very short period, between the 'Wright process' and the double cover process. The Wright process consisted in covering a strip of metal with a braid, and then gumming with dextrine the long braided strip at the end of each crimper.

"When the depositions were taken, Blakesley had called to mind, or thought he had, the use of the bare metal process, and both he and Wright testified accordingly, but no explanation was given of the omission to tell this fact in their affidavits.

"The defendant's case in the New York suit rested upon the double cover process, which counsel apparently thought was a sufficient anticipation of the patent in suit.

"In this case, Robinson, Lewis, Hubbell, Sikes, Mitchell, Mrs. Gowdy, Carrington, Blakesley, and Wright, the first five being new witnesses, testify to the use of the bare metal process by Blakesley, in 1876, and all except Lewis, Hubbell, and Mitchell, testify to the use of the two processes.

"I disregard the testimony of Hubbell and Mitchell, because, although they were at work in Blakesley's shop continuously, the former during the year 1876, and the latter from the early part of 1876, to the fall of 1877, they remember nothing about the double cover process, which confessedly was used before their eyes nearly all the time.

"The accuracy of a memory cannot, in my opinion, be relied upon, which remembers nothing of the ordinary, habitual process which was used continuously in their presence, after the early part of May, 1876.

"I disregard also the testimony of Carrington, because he was a witness in the New York case, and said at that time nothing of the bare metal process, although he thinks that he then recollected it; I think that he did not then recollect it because he would naturally have mentioned the circumstance either upon examination or cross-examination, if it had been in his mind.

"This leaves the testimony of Robinson, Lewis, Sikes, Mrs. Gowdy, Blakesley, and Wright.

"Considering the testimony of Blakesley as not entitled to full weight by reason of his interest, and of his non-recollection of a fact in his own business which took place in 1876, I am impressed with the truthfulness of Wright, Robinson, Lewis, and Mrs. Gowdy. In the testimony of Sikes I see nothing to criticise, but it is general in its character, and is not accompanied by a statement of circumstances which show why the process was noticed and remembered.

"The history which is detailed is this :

"After Blakesley commenced the crimper business, which seems to have been in the early part of 1876, he manufactured for a short time by the Wright process ; he then, in the month of April and early part of May, used the bare metal process for a short time, not exceeding two weeks, perhaps not as long, and by this process manufactured and sold some fifty 'great gross' of boxes. Each 'great gross' contains one hundred and forty-four small boxes of a dozen crimpers each.

"On account of the liability of the silk covering to be stained by the dextrine, the double cover process was thereafter used until the fall of 1879, when it was suspended, and resumed in the early part of 1880, and continued until the fall of that year, when Blakesley failed in business.

"I am fully aware of the ease with which honest witnesses can persuade themselves that they remember some by-gone circumstance which they are ingeniously induced to think that they remember, but, in this case, I do not perceive any manipulation of these witnesses, and I think that their testimony was not manufactured and they were not mistaken.

"There is nothing improbable, either by reason of the state of the art, or of the character of the improvement, in the history which is given. The invention, after the Wright process had been used, was a very natural one.

"The bill is dismissed."

An appeal was taken by the appellees in the Connecticut case to this Court before the present case was appealed. The plaintiffs failed to prosecute and the bill was dismissed, and the decree of the Circuit Court in Connecticut was affirmed, thus invalidating the patent in suit, January 15, 1892. See 145 U. S.

Subsequently these same plaintiffs sued Charles B. Rouss, a merchant and seller in New York, on the same patent, and the opinion of Judge Coxe, dismissing the bill, reported in 40 Fed. Rep., 584, is as follows :

> "COXE, *J.*
>
> "This is an infringement suit, based upon letters patent, No. 218,300, granted to Mills and Hershey, August 5, 1890, for an improvement in hair-crimpers.
>
> "The patent was declared invalid by Judge Shipman in the Circuit Court for the District of Connecticut. Hershey *vs.* Blakesley, 33 Fed. Rep., 922.
>
> "That the parties to that action are, in legal contemplation, the same as the parties to the suit at bar, and that the records in the two actions are, substantially, identical is conceded.
>
> "The defendant has taken some additional testimony, but the complainants' proofs are the same in every respect as those presented in Hershey *vs.* Blakesley.
>
> "I have examined the record and briefs to discover a plausible theory upon which the two causes can be distinguished, so as to justify the Court in a re-examination of the issues presented.
>
> "I find none.
>
> "The Court is now asked to pass upon the same question, which, after deliberate and careful consideration, has been decided by another judge of the same Circuit upon precisely the same testimony.
>
> "There is no precedent for such a course. The matter is *res judicata.*
>
> "The bill is dismissed."

The above two suits involved precisely the same issue as that involved herein.

The same plaintiffs sued said Rouss on a reissue patent involving somewhat similar issues, and the opinion of Judge Wallace, dismissing the bill, is as follows: (*Philadelphia Novelty Mfg. Co.* vs. *Rouss*, 39 Fed. Rep., 273.)

> "WALLACE, *J.*
>
> "All of the claims of the reissued patent in suit are for inventions not shown or suggested in the original patent, with the exception of claims five and six. The invention of the original patent embraced hair-crimpers of two kinds — one in which the fabric is applied to the soft metal core by stitching, and another in which the fabric is fastened to the core by a metal fold made by turning over the thin edges of the core or of a strip of sheet lead inside the fabric over the core. Two of the claims (the third and sixth) were for the core separately with modifications, and all the others were for the core with the fabric attached to it in one of these specified ways. The specification of both the original and the reissued patent closes with this clause: 'I also modify my invention in various other equiva-

lent ways such as would suggest themselves to any intelligent mechanic to meet special requirements.' It is insisted now for the complainant that fastening the fabric to the core, by cementing them together, is an equivalent mode of fastening them to stitching or turning in the lateral edges of the core or its supporting strip. Claims one, two, three, four, and seven are expansions of claims of the original apparently intended to embrace the cemented fastening in the claims, as well as the fastening by stitching or turning over the edges of the metal. If it is true as argued that this is only the introduction of an equivalent into the claims, it was wholly unnecessary; and it may reasonably be assumed that the Patent Office did not so consider it. It must be held that these claims were designed to expand the claims of the original and take in inventions which are not found in the original and are therefore invalid.

"If it should be conceded that the inventions now claimed were described in the original patent, then, as the claims of the reissue are expansions and more than three years elapsed after the original was granted before the reissue was applied for, the doctrine of laches applies ; and the delay must be held unreasonable in the absence of any explanatory averments in the bill accounting for it. Wollensak *vs.* Reiher (115 U. S., 95).

"The special demurrers to the bill are sustained. As the principal controversy has been upon the matters raised by these demurrers, costs are allowed to the defendant. The general demurrers are not sustained because, unless the patent is invalid for want of novelty, the fifth and sixth claims are good and entitle the complainant to a decree for infringement ; and the court cannot decide as matter of law upon the face of the patent without the aid of extrinsic evidence that those claims are destitute of inventive novelty."

These same plaintiffs sued Rouss also on the trade-mark somewhat dwelt upon in this cause in New York and the opinion of Judge Coxe dismissing the bill is as follows :

(See *Philadelphia Novelty Co.* vs. *Rouss*, 40 Fed. Rep., 585.)

"COXE, *J.*

"This is an action for the infringement of a trade-mark. The bill alleges that the complainant is engaged in manufacturing and selling hair-crimpers which are put up in packages of twelve and wrapped with a tan-colored paper, which is held in place by a rubber band. Twelve of these packages are placed in a red paste-board box, on the cover of which is a white label with a black border, 'and, as a distinctive trade-mark, in the center, the head of a woman with hair curled, together with the words, Madam Louie Common Sense Hair Crimper.'

"The defenses are, first, that the complainant is not entitled to the exclusive use of the alleged trade-mark, and second, that the defendant does not infringe.

"The defendant deals in crimpers manufactured by the Blakesley Novelty Company, which are packed, in a manner similar to the complainant's in red boxes with white labels, and are sold by the gross. In the center of the label is the head of a female surrounded by the following words :

'The Langtry Elegantes One gross No. 1, Black Hair Crimpers.'

"For a more minute and accurate description of the two labels see Complainant *vs.* Blakesley Novelty Co., 37 Fed. Rep., 365.

"It will be seen that the only marked similarity between the two is found in the fact that both are white and have the central vignette, but these features the defendant had a perfect right to use ; a better right, in fact, than the complainant. Long before the complainant's precessors had adopted their design, the predecessor of the defendant's vendor had sold crimpers packed by the gross, in a pasteboard box, on the cover of which was a white label with a black border, in the center of the label 'the head of a woman with hair curled,' and over the head the words 'Hair Crimpers.' Business misfortune necessitated the discontinuance of this label for two or three years, but, in a legal sense, it was never abandoned.

"So far as the distinctive trade-mark is concerned, there is, manifestly no liability. The defendant had an indisputable right to the white label and the central vignette, and in other respects there is no resemblance between his label and the complainant's. They are dissimilar in form, language, type, and general appearance.

"The contention is, therefore, narrowed down to the question whether any right of the complainant is violated because the defendant sells crimpers wrapped in tan-colored paper and packed in red boxes.

"It is thought that the affirmative of this proposition cannot be maintained, and especially so, in the absence of proof that purchasers have been deceived. There is, of course, a general similarity between all crimpers of this pattern ; but no one who thoroughly understood the distinguishing features of the complainant's crimpers and preferred them to the defendant's could ever mistake the latter for the former.

"In addition to the differences of the labels, before averted to, the complainant's crimpers are smaller than the defendant's and much heavier, a box of them weighing over three times as much. The wrappers, too, are unlike. The defendant's is about two and one-fourth inches in length and contains nothing but the printed words of the 'Langtry' white label; the complainant's, on the contrary, is nearly four inches in length, and in addition to the words of the 'Madam Louie' white label, there appears the complainant's vignette, directions for use, and a caution against 'spurious imitations.' In short, there are marked differences in everything, except the color of the box and wrapper, and these differences are so pronounced and unmistakable as to overshadow the two points of similarity.

"The language of Mr. Justice Field in Liggett *vs.* Finzer, 128 U. S., 182, seems applicable.

"'The judgment of the eye upon the two is more satisfactory than evidence from any other source as to the possibility of parties being misled so as to take one article for the other; and this judgment is against any such possibility. Seeing in such case is believing; existing differences being above perceived and remaining on the mind of the observer. There is no evidence that any one was ever misled by the alleged resemblance between the two designs.'

"There is no such evidence here. The proof is overwhelmingly to the effect that a purchaser, really preferring the 'Madam Louie' crimpers and desirous of procuring them, could not be deceived by the defendant's crimpers, unless she were afflicted with partial blindness, an arrested mental development, or an unusually heedless disposition. The law cannot take cognizance of conditions so abnormal.

"In Adams *vs.* Heisel, 31 Fed. Rep., 279, the Court, in dealing with facts quite similar to those in hand, observes:

"'The complainants could not obtain a trade-mark for the form of the sticks of chewing gum they might manufacture, nor by the use of a peculiar form and decoration of the boxes they may use to hold the sticks of gum, nor in the manner in which the gum might be placed in the boxes. These qualities and forms are common to the manufacture, and may be made similar, without injury to others who may use the same forms. * * * The complainants cannot now so broaden and enlarge their trade-mark as to cover the whole box, with all its ornaments and forms of putting up the gum, and the colors used in such decorations, and thereby prevent others from using these forms of putting up gums for sale.'

"The trend of the law is strongly towards the proposition that, in ordinary circumstances, the adoption of packages of peculiar form and color alone, unaccompanied by any distinguishing symbol, letter, sign or seal, is not sufficient to constitute a trade-mark.

Fleichman *vs.* Starkey, 25 Fed. Rep., 127;
Fairbanks *vs.* Jacobus, 14 Blatchf., 337;
Wilcox *vs.* Gibbons, 17 Fed. Rep., 623;
Moorman *vs.* Hoge, 2 Sawyer, 78;
Faber *vs.* Faber, 49 Barb., 358;
Davis *vs.* Davis, 27 Fed. Rep., 490;
Falkinburg *vs.* Lucy, 35 Cal., 52;
Brown Chem. Co. *vs.* Stearns, 37 Fed. Rep., 360;
Brown on Trade Marks, Sections 271, 272.

> "The Courts will have time for little else if they undertake to meddle with and regulate the color and size of the wrapping paper and boxes in which a shopkeeper displays his wares. Trade should not be hampered by vexatious restrictions in matters apparently so trivial.
>
> "As the distinctive trade-mark of the complainant has not been infringed, and as the public have not been deceived by the defendant's acts, it follows that the bill should be dismissed."

These same plaintiffs sued Gilbert H. Blakesley, the real defendant, on the same trade-mark in Connecticut, and the opinion of Judge Shipman dismissing the bill, is as follows:

(See *Phila. Nov. Mfg. Co.* vs. *Blakesley Co.*, 40 Fed. Rep., 588.)

> "Shipman, *J.*
>
> "This is a bill in equity to prevent the alleged infringement of a trade-mark, and has now been heard upon final proofs. A motion for preliminary injunction had been previously heard and denied. (37 Fed. Rep., 366.) The finding of facts upon that motion was correct, except that I was mistaken in saying that 'the crimpers are ordinarily sold by the box, or are shown to the purchaser in the box.' They are sold to the consumer by the small package from an uncovered red box.
>
> "What is styled in the bill 'the distinctive trade-mark,' *i. e.*, the printed matter upon the label and the picture of the head of a woman with hair curled, or, in other words, the label itself, is not infringed by the defendant's label for the reason stated in my former opinion.
>
> "The complainant's label, with its words, symbols, and distinctive appearance not having been simulated, and the defendant's box, with its label, not being adapted to deceive or mislead the purchaser, is the use of the same or similar copies of wrappers and of boxes to be enjoined as infringing the rights of the complainant?
>
> "The answer must be in the negative, unless the complainant's trade-mark proper has been imitated to some extent, or unless there is a colorable resemblance between the two marks. The case of the complainant against Rouss was recently heard in the Circuit Court for the Southern District of New York upon the same record which was used in this case, and nothing need be added to the statement of the law by Judge Coxe in regard to the rights of a manufacturer to the exclusive use of a particular color, when no mark or symbol has been simulated.
>
> "The bill should be dismissed."

We have this strange state of facts. The plaintiffs are attempting to sustain against a vendor a patent which in the same Circuit has

been twice adjudged void, once in favor of the maker, once in favor of the vendor — and that after the decree has been affirmed by this Court.

II.

First. The defendant's manufacturer was the pioneer in the art, and the plaintiffs had knowledge of Blakesley's prior invention when they applied for their patent.

> *It may be well to inquire, first, what the art, an invention in which is claimed by the plaintiff, is.*

Briefly, the art relates to an article of manufacture which consists, in the language of the patent, of "a hair-crimper consisting of the non-elastic metallic core, C, and braided covering, A, said covering, A, being cemented to said core, C, throughout its entire length, substantially as described." The article is supposed to be used by ladies. A strand of hair is rolled around the crimper in the center until it is close to the wearer's head, when the ends are bent over. These ends keep their position, thus maintaining the hair in position until the wearer desires to remove it, when the ends are unbent, the crimper is removed, and is ready for use again.

The specification of the patent, which, by an oversight, has not been printed in the record, is as follows:

Fig. 1.

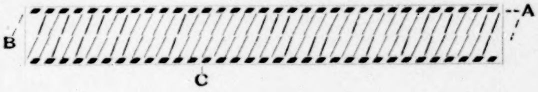


Fig. 2.

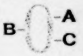
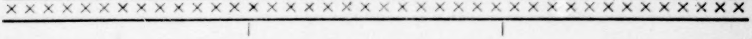


Fig. 3.



> "*To all whom it may concern:*
>
> "Be it known that we, William Mills and Christian H. Hershey of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented certain improvements in the manufacture of hair-crimpers, of which the following is a full, clear, and exact description, reference being had to the drawings accompanying and forming part of this specification.
>
> "Figure 1 is an enlarged longitudinal view through the flat side of a hair-crimper of our construction, Fig. 2 being the transverse section of the same. Fig. 3 shows a strip of crimper stuff upon a

reduced scale, the transverse lines indicating points of division of the separate crimpers. Fig. 4 is a sectional view of a braiding-machine, showing the method of applying the cement while the core is passing through the same.

"The lettering is uniform.

"This hair-crimper is intended to be applied to the hair in the manner of the crimping-papers formerly in common use, the ends being turned under out of sight, and the hair retained by the folds thus made.

"It consists, essentially, of a strip of soft, non-elastic metal, preferably flat, covered with a fibrous coating, cemented thereto, so that when cut into proper lengths for use the ends will not fray out, but remain the same into whatever number of pieces the crimper may be divided, thus rendering it especially adapted for use with children, where crimpers of different lengths are often required, while at the same time greatly simplifying and cheapening the cost of manufacture.

"The material we use for the core of this crimper is what is known to the trade as 'gardeners' lead,' though a thicker strand may be employed if so desired. This lead is drawn out in great lengths. and is round in section. The various strands, being disentangled from the coil, are spooled separately. The lead is then passed between grooved rollers, so as to elongate and flatten it.

"It is found by experience that in order to prevent brittleness in the product it is necessary to reduce it gradually by repeated rollings. two being usually sufficient. It is then ready for the reception of the braid. An examination of Fig. 4 will serve to illustrate this process.

"The braider K stands horizontally, the spools L L L L (usually sixteen or eighteen in number) revolving about the center in involved circles. The spooled lead is taken from beneath, D. and passes up through the center of the machine, making a double turn over the rollers E and F, so as to pass through the liquid cement in the cup O, and thence up to the rollers G, between which the finished crimper stuff M″ passes to the reel H. The braid or fibrous covering is laid upon the lead at M′, and the adhesive material, taken up in its passage through the cup O, is interposed between the fibrous coating A and the soft-metal core C, making a fine adhesion. while leaving the outer surface soft and unsaturated. Were the fibrous surface thoroughly saturated with adhesive matter, the crimper would be comparatively useless, as the least moisture in the hair would cause its adhesion thereto. This sometimes occurs by accident and necessitates the rejection of considerable quantities of the finished goods.

"The cement found preferable is a solution of dextrine, with or without the addition of a small portion of liquid glue, though any other cement may be employed if desired.

> "After passing through the braider, the stuff upon the reel is laid away to dry, after which it is run through a cutting machine of peculiar construction, which rapidly cuts the strip into pieces of equal length, laying them out in dozens, which are then, without further preparation, bundled and boxed for the market, though, of course, the cutting and counting may be performed by hand, if preferred.
>
> "As all these operations are performed by machinery, the finished product can thus be delivered at a comparatively slight advance upon the cost of material, and the increasing popularity of this article during the few months in which it has been made seems to indicate that it is likely to become a manufacture of considerable value.
>
> "What we claim as our invention, and desire to secure by letters patent, is —
>
> "1. A hair-crimper consisting of the non-elastic metallic core C and braided covering A, said covering A being cemented to said core C throughout its entire length, substantially as described.
>
> "2. The process of manufacturing hair-crimpers by first flattening soft metal wire between rollers, then covering it with a braided fibrous coating, attached thereto by means of an adhesive substance, and afterwards dividing the material into suitable lengths for hair-crimpers, substantially as herein described."

The first claim alone is in issue in this cause.

The essentials of the patented article are thus seen to be as follows:

(*a*) A strip of non-elastic metal to serve as a core. This must be of a character to permit of frequent bending and unbending, so that the crimper will remain in position after it has been adjusted to the hair of the wearer and so that it can be used more than once, and it must also have a sufficient body or thickness.

(*b*) A fibrous or braided covering to come in contact with the hair of the wearer.

(*c*) A cementing of the braided covering to the core so that the longs strips can be cut anywhere desired and the ends not unravel. This for convenience of manufacture.

We think it will be admitted that the above is a fair statement of the essentials of the patented article.

BLAKESLEY WAS THE PIONEER IN THE ART.

The application of the plaintiffs' patent was filed April 14, 1879, and no attempt to fix the date of the invention definitely back of this has been attempted.

HISTORY OF DEFENDANT'S MANUFACTURE.

First Step. In 1875, four years before the plaintiff's application was filed, Blakeslee's predecessor, Julius Wright, made hair-crimpers by rolling and shearing copper to its proper thickness and width, braiding it with silk, and applying dextrine with a brush at the points where the long strip was to be severed into portions suitable for crimpers.

See testimony of Mr. Wright (Record, p. 74).

Q. 14. Please explain how these hair-crimpers were made.

Ans. In the first place, I had copper rolled down to the proper thickness, then it was sheared up; it was then put on to a reel and run up through the braider and braided with silk. Then I had this taken off a reel and stretched out on a bench, and at certain lengths that I wanted to cut the crimps, I used the dextrine with a brush for the same purpose that we did for cutting up the garter; that is, to assist in cutting up. Then those that I made, I made a little brass tip, as I called it, which I put on to give the crimper a finish or ornament, whichever might be proper.

Q. 15. Will you state again your object in applying the cement to the crimper strip.

Ans. It was to adhere the silk to the metal, and stiffen it, so as to cut it.

Q. 16. If, as you say, the tips were for ornament, why did you consider it necessary to use them ?

Ans. In order to make them appear better in market. I considered that it gave them a more finished look.

Q. 17. Suppose you left the clips off, or that they became detached, was there anything to prevent the ends of the covering from fraying, or the covering from slipping on the strip ?

Ans. The dextrine held the covering secure to the metal.

See, also, testimony of Blakesley (Record, p. 86).

Q. 12. Do you know how his hair-crimpers were made ? And if so, please describe the process briefly.

Ans. I do. Narrow strips of metal, copper, were conducted through a braiding machine, which was provided with silk, receiving a scarlet silk cover. They were cut into lengths of several feet after being braided. A board of suitable length was spaced off with marks as a guage for the lengths into which the strip was to be cut. The strips would be laid on this board, and a cement, made of dextrine, was daubed on to the silk cover on both sides, saturating the covering thoroughly at the specified points, about two and a half inches apart. They were then cut at these points, and provided with a silver-plated clip at each end, packed in slide-boxes, holding one dozen each, twelve of these placed in a large box, and sent to market.

The time of making these is fixed definitely by both witnesses from the fact that Mr. Wright gave up his business in the fall of 1875 and it was continued by Mr. Blakesley.

Record, p. 75.

> Q. 19. Did you get through in the year 1875?
> Ans. I did; it was in the fall of '75.

We note here the strip of *non-elastic metallic core*, the *braided covering*, the use of *dextrine for cementing the braided covering to the core to prevent unravelling.*

Thus, four years before the plaintiffs applied for their patent, an article was made in Bristol by Wright which embodied every essential claimed by the plaintiffs in the first claim of the patent.

And the development was perfectly natural from the manufacture of the garter, as testified to by Wright. (Record, p. 73, Q. 3) and Blakesley (Record, p. 85, Q. 5).

It is not claimed, however, that Wright cemented the braided covering to the core "throughout its entire length."

This Blakesley did the next summer, *i. e.*, in 1876, three years before the patent in suit was applied for.

Mr. Blakesley first made his crimpers in the same way as Mr. Wright, but, like all ingenious inventors and manufacturers, he soon improved upon Wright's methods.

The process of stretching the braided core upon a bench and gumming it at intervals was slow, tedious, and expensive.

Second Step. In April or May, 1876, he began to make hair-crimpers by passing a soft metal core directly from a reel through a bath of dextrine, and thence to a braider where the covering was braided directly upon the gummed metal.

See Wright's testimony (Record, p. 75, Q. 22, *et seq.*).

> Q. 22. How was this braiding done as you saw it?
> Ans. The first that I saw of it was in the spring of '76. I was up at the factory to settle some little business affair between us. I stepped into the braiding room and saw that he had taken a different method from what I had used. He then had a strip of metal on a reel placed beneath the machine, and above this reel, near to the braider, was a dish of dextrine that he was passing the metal up

through under a roll, or rod, to immerse it in the dextrine. It then went up through and was covered, braided with silk.

Blakesley's testimony (Record, p. 86, Q. 17).

> Q. 17. Did you ever change that process, and if so, how?
>
> Ans. I did. I directed a plain strip of brass through a dish of dextrine provided with a roller journalled in the dish, thereby to immerse the strip, passing it to the braider, while wet with cement, to which the silk cover adhered throughout the length of the strip. I then cut them up at any point I desired.

Counsel for appellants is uncertain whether this court will take cognizance of the affidavits presented by defendants upon motion for the admission of additional testimony, and for a rehearing, and will content himself with referring to the fact that these affidavits fully bear out the points made herein, and claims that upon their presentation the case should have been reopened. These affidavits are those of

Fred B. Mitchell, Record, p. 97;
George Lewis, Record, p. 98;
Frank A. Hubbell, Record, p. 99;
Timothy B. Robinson, Record, p. 100;
Mrs. George A. Gowdy, Record, p. 101;
Rufus Sikes, Record, p. 102;
Gilbert H. Blakesley, Record, p. 102.
George D. Seymour, then counsel, Record, p. 103.

We note here that Blakesley, three years before the application for the patent suit, embodied in his patent every essential of the claimed invention.

He not only made the same thing so that it performed the same function but he made it in the same way.

Third Step. Blakesley then almost immediately began to make crimpers by first applying to the non elastic core a braiding of cotton. This was conducted through a dish of dextrine, passed between rollers, and above that a covering of silk was braided, the silk and cotton being both thoroughly cemented to the core.

See Blakesley's testimony (Record, p. 87, Q. 19, *et seq.*).
Wright's testimony (Record, p. 76, Q. 29, *et seq.*).
Mrs. Paul's testimony (Record, p. 58, Q. 7, *et seq.*).
Carrington's testimony (Record, p. 62, Q. 7, *et seq.*).
Miss Bracken's testimony (Record, p. 66, Q. 2, *et seq.*).
Miss Sikes' testimony (Record, p. 84).

All witnesses testify that those three kinds of crimpers were practical and effective in use and were sold.

They undoubtedly were the inspiration for the manufacture of plaintiffs' crimpers, for the plaintiffs themselves testify to having seen these 1876 crimpers on sale in Philadelphia in 1878. (See Record, pp. 19, 20.)

A curious evidence that the plaintiffs imitated Blakesley's manufacture rather than that he imitated them is found in a judicially determined fact.

At page 33 of the Record, Dr. Heysinger says that early in plaintiffs' invention "I helped him to select a head for his label."

Afterwards plaintiffs sued Blakesley and Rouss on this pretended trade-mark and the opinion of Judges Coxe and Shipman fully describing the labels is given above, pp. 8 and 10.

But Judge Coxe makes this finding at page 8, which in a very peculiar and important way confirms our contention.

We will remember that Dr. Heysinger testifies that the plaintiffs' label, or the head for the label, was selected at the very beginning of their manufacture at the time of plaintiffs' first conception.

Judge Coxe says:

> "It will be seen that the only marked similiarity between the two is found in the fact that both are white and have the central vignette, but these features the defendant had a perfect right to use; a better right, in fact, than the complainant. *Long before the complainant's predecessors had adopted their design, the predecessor of the defendant's vendor had sold crimpers* packed, by the gross, in a paste-board box, on the cover of which was a white label with a black border, in the center of the label 'the head of a woman with hair curled' and over the head the words 'Hair Crimpers.' Business misfortune necessitated the discontinuance of this label for two or three years, but, in a legal sense, it was never abandoned."

And Judge Shipman says the same thing in 37 Fed. Rep., 367.

Fourth Step. Blakesley's next improvement consists of the alleged infringing crimper, which consists of a core formed by two strips of paper, which are passed through a bath of dextrine, between which is placed a strip of metal to serve as a core stiffener, all braided over with fibre while moist.

The crimper and all the circumstances are best described by Mr. Blakesley in his affidavit at page 51 of the record:

> "In making my new crimper, having a paper envelope enclosing the metallic core, I employed long strips of tough paper, which were of the widths of the crimpers to be produced. Two strips were employed, and these were applied to opposite sides of the core. The process of making my new improved crimper consists, essentially, in passing the paper strips through a bath of dextrine, and feeding them into the braider on opposite sides of the core which is carried up between them. As the thread is applied or woven on, it draws the paper strips together and causes them to adhere at the edges, and form a pocket or case for the core; the braided covering adheres to the outer faces of the paper strips. In this connection, I wish to state that the first of my new crimpers put on the market were made with stock left over from 1879; this was broad brass stock, and did not allow the edges of the paper to adhere. 'Complainant's Exhibit B, C. H. B. Hershey,' is one of the crimpers made with broad stock. I made comparatively few crimpers with this broad stock, and soon procured some light wire, which I used successfully, and which I am now using. 'Defendants' Exhibit B, G. H. B.,' which I have prepared to go with this deposition, is one of the light and narrow stock crimpers. Most all of the crimpers which I have manufactured since August, 1883, have had narrow cores like the exhibit referred to. It will be noticed that the edges of the paper strips adhere together, and thus hold the core in place."

Now, the above construction, we do not believe, infringes the patent in suit. That subject we discuss later in the brief.

We think, however, it is exceedingly interesting and important to notice the development of the manufacture, which is the strongest kind of a confirmation of the record of fact presented.

As the Wright crimper was a natural growth from the Wright garter, the bare-metal crimper from the Wright crimper, the double-cover crimper from the bare-metal crimper, so this paper-core crimper is a natural growth from the others in the hands of an ingenious and industrious manufacturer.

The whole history shows a minute study of the needs of the user, an intelligent comprehension of those needs, and an effective meeting of the want in the manufactured article. In weight, convenience, material, and every characteristic the defendant's construction both meets the wants of the user and the requirements of cheap and convenient manufacture in a way which ought to be a revelation to the plaintiffs.

Now, we submit that in attempting to sustain their patent against this history the plaintiffs are skating over exceedingly thin and brittle ice, especially as they have submitted to two judgments against them in the same circuit, one of which has been affirmed for want of prosecution by this Court ; and, moreover, themselves confess to have seen our construction long before they applied for a patent, and are attempting to claim a priority of manufacture that both Judge Coxe and Judge Shipman have found belongs to Blakesley.

It may be as well to come immediately to the real difficulty in the case, which is rather a misfortune than a difficulty.

Immediately after the institution of the suit the plaintiffs pressed persistently for a preliminary injunction. The early facts as to the manufacture by Blakesley were at that time (1884) eight to nine years old (1875–1876). Affidavits were prepared to oppose the motion, and the fact of the manufacture by the bare-metal process prior to the double-covered process was not incorporated in these affidavits, which are printed in the Record, page 48, *et seq.* Judge Wallace was evidently affected by this fact. (Opinion, p. 95.)

> "The theory that Blakesley made crimpers also by immersing a strip of metal in dextrine and then covering it, as testified to by him and by Wright, is refuted by the omission of both Blakesley and Wright to mention the fact in their affidavits used to oppose a motion for a preliminary injunction in this case. Those affidavits purport to give a full history of the manufacture of crimpers by Blakesley, and the omission to state what was so important, if true, is significant."

Judge Wallace, in his opinion, also says of the double-cover crimper that "the adhesion of the strands together, and not their adhesion to the core, was the object he had in view."

Mr. Wright, who impressed Judge Shipman as a reliable witness, explains that he spoke to counsel about the bare-metal process when he gave his affidavit. (Record, p. 78, X.-Q. 60, 61.) And the counsel, in a very manly way, explains the whole matter, and assumes the responsibility of the mistake in his affidavit at page 104.

Mr. Wright was simply asked to make his sworn statement to certain facts, supposed by counsel to be the pertinent ones, which he did, and none of these facts have been disputed; and it is not seen how, in view of this explanation, statements subsequently made by him of other facts of his knowledge are refuted. It is to be particularly noted also that there is nothing whatever in Mr. Wright's affidavit to the effect that it contained all that he knew about Mr Blakesley's crimper business, which, in fact, it did not purport to do. In fact, Wright knew more about the bare-metal process than the double-cover process. (Record, pp. 75, 76, Qs. 22–33.)

And Judge Shipman gives the facts clearly in his opinion (*supra* p. 3). See also opinion of Judge Coxe (*supra*, p. 6).

All practising lawyers know how difficult it is to get all the facts together in such a case in the hasty manner which preparation for a preliminary injunction calls for. Nor do we think that in affidavits such as are alluded to the witnesses are expected to give all the details, but only such as concern the matter as to which they testify.

Rightly or wrongly, rightly as we believe, counsel thought that the double-cover process produced a crimper which was an anticipation of the plaintiff's invention, if such it can be called. The affidavits were directed strongly to that point to the neglect of others. It has been thoroughly established by evidence in this case, and by facts established by the opinions and decrees of the courts, that those facts are true, however, and it is apparent that circumstances at that time, justly no doubt, influenced Judge Wallace to give an opinion which he would not give again. This is manifest from the fact that he subsequently denied a preliminary injunction in the case against Rouss.

The great fact in the case is this:

Blakesley, following Wright in 1875, practiced the art in the same way to produce the same thing by the same means as was years afterwards practiced by the plaintiffs.

The transition from garter to crimper by Wright; the substitution of reels of metal running continuously through dextrine and braided upon by thread while wet by Blakesley; the double-cover process; the combined paper and wire core subsequently used,—all are perfectly natural steps in the development of this manufacture.

As Judge Shipman well says, *supra*, p. 5:

"There is nothing impossible, either by reason of the state of the art, or of the character of the improvement, in the history which has been given. The invention, after the Wright process had been used, was a very natural one."

This history Judge Shipman gives as follows, *supra*, p. 5:

> "After Blakesley commenced the crimper business, which seems to have been in the early part of 1876, he manufactured for a short time by the Wright process; he then, in the month of April and early part of May, used the bare-metal process for a short time, not exceeding two weeks, perhaps not as long, and by this process manufactured and sold some fifty 'great gross' of boxes. Each 'great gross' contains one hundred and forty-four small boxes of a dozen crimpers each.
>
> "On account of the liability of the silk covering to be stained by the dextrine, the double-cover process was thereafter used until the fall of 1879, when it was suspended, and resumed in the early part of 1880, and continued until the fall of that year, when Blakesley failed in business.
>
> . . . .
>
> "There is nothing improbable, either by reason of the state of the art, or of the character of the improvement, in the history which is given. The invention, after the Wright process had been used, was a very natural one.
>
> "The bill is dismissed."

The exhibits, too, used before Judge Wallace must have been very old, a matter we refer to below, and according to the testimony could not have exhibited very well the condition of the crimpers when made eight or nine years before.

The plaintiffs introduced considerable testimony to show theoretically the qualities of dextrine and theoretically its application to purposes such as detailed in the case in question.

It does not seem to us that this can be deemed essential. There is no impeachment of witnesses in the present case. The credibility of no witness is affected. They are plain, modest, New England villagers, where all work and all tell the truth. They all say that dextrine was used and that both the purpose and effect of its use was the adhesion of covering to core.

But we are not at all certain that the intention is essential. What did Blakesley do? That is the question.

The plaintiffs do not deny that Blakesley made crimpers in the fashion he and others describe, but say that the dextrine was thin;

that it was not used to cement the covering to the core but to cement the strands together; that clips were used to prevent the ends from fraying, etc., etc.

But Blakesley did use a soft metal core; Blakesley did braid upon this a textile covering. (We cannot see how the fact of its being double or single affects the question. The patent surely does not mention the number of coverings.) Blakesley did use dextrine; Blakesley did apply the dextrine to the entire length of the soft metal strips.

These are the essentials and these are the things Blakesley did. Clips were used for ornament as a legacy of the prior art as practised by Wright. They were supposed to give a finish to the product. But all witnesses agree that the crimpers were used and sold with and without clips.

> "As far as my use is concerned, I would rather have them without clips."

Miss Bracken, Record, p. 67, X. Q. 15.

> "I had them both ways." "The untrimmed crimper answered just as well and I usually used that."

Miss Sikes, Record, 84, Q. 4 – 8.

BLAKESLEY CERTAINLY HAD THE RIGHT TO USE IN THE MANUFACTURE OF CRIMPERS IN 1884 THE SAME ESSENTIALS AS IN 1876 NOTWITHSTANDING THIS PATENT.

The plaintiffs use a soft lead core. This is run through a dextrine bath, covered with cotton braid, and then run between rollers. (See Record, page 26, and the patent in suit.)

Great stress was laid by the plaintiffs upon the fact that at the time of the trial the textile covering of the 1876 crimper showed no adhesion to the core. (See Heysinger's testimony, Record, page 24, Q. 12; page 29, Q. 27, etc.) And the fact that these exhibits did not show adhesion undoubtedly had great weight with Judge Wallace. (See his opinion, Record, page 95.)

We respectfully press upon the attention of this honorable Court the fact that when these exhibits were introduced in evidence they were eight or nine years old, made in the early summer of 1876 and tested by Judge Wallace in 1885. (Opinion filed April 10, 1885.)

We have carefully examined a large number of the alleged infringing crimpers made in 1884 or 1885, and now, after a lapse of about eight years we cannot discover any appreciable adhesion of the textile covering to the core any more than such adhesion could in 1885 be discovered in the 1876 crimpers.

We apprehend it to be perfectly legitimate to ask the Court, by personal inspection, to observe that this is so by examination of any of the exhibits of infringing crimpers (complainant's "Exhibit B," and defendant's "Exhibits B, G, H, B").

We are certainly well within our rights, then, to claim that in 1884 Blakesley could make and sell crimpers which the lapse of time show are made in exactly the same way, so far as this matter of cementation is concerned, as those made early in 1876, long before the complainants had any rights under their patent.

We might go farther and ask the Court to observe that the claims of Blakesley that "the cement had become thoroughly dried and lost its adhesive powers" (Record, page 89, Q. 45), which the plaintiffs strenuously contest by the mouths of plaintiffs and experts is borne out by an examination of complainant's crimpers.

See complainant's "Exhibit A."

We have slit a number of them with a knife and cannot observe that the adhesion after this lapse of time is any greater than in the case of the defendant's crimpers. This seems to thoroughly destroy the value of all the expert testimony of the plaintiffs, which rests on that one theory that the plaintiffs, in their manufacture, used a cement made and applied differently from that of the defendant in 1876. And it may be well to call attention to the fact that the patent in suit does not emphasize this. The plaintiffs seem to complain that in 1876 Blakesley failed to use cement as they afterwards used it, but pay little regard to the use prescribed by the patent, which is the real test.

The difficulty with that testimony is that they were comparing a freshly made article with one eight or nine years old.

It was a question of fact and no attempt was made to impeach the defendant's witnesses. They all testify that the crimpers were made by cementing the fibre to the core by passing the core through a bath of dextrine and braiding on to it while wet.

The theory that articles made eight or nine years before could not have been made the way they are testified to have been made does not seem to be of great value, especially as the articles claimed by the plaintiff to have been made in accordance with their theory are affected in the same way by the same lapse of time.

Blakesley, in making his double-covered crimpers in 1876, ran the cotton core through dextrine and then between stripping rollers.

See Blakesley's testimony, page 87, Q. 19.

> "Q. 19. Did you make any crimpers after this, and if so, how were they made?
>
> "Ans. I made them with a double covering. I first covered the plain strip of metal with cotton, the strip being dry. I then conducted the cotton-braided strip through the silk braider, applying a cover of silk. The cotton-covered strip was conducted through a dish of dextrine under a roller journaled in the dish, thence to a pair of stripping rolls situated between the dish and the braider. This dextrine saturating the cotton thoroughly throughout its length, the stripping rolls depriving it of the surplus cement, leaving it wet and thoroughly saturated and wet enough to receive the silk covering and cement it, so that all three — core, cotton cover, and silk cover — were cemented together. They were cut up and packed as before."

That is, perhaps, the clearest statement of the method. All the witnesses agree with it, and all say that serviceable crimpers were thus made, and that they were worn and sold both with and without clips. All testify that the fiber was cemented to the core throughout its length.

Mr. Heysinger (Record, page 22) finds a great deal of fault with these stripping rollers, and even impressed Judge Wallace with his theory that the purpose was "the adhesion of the strands together, and not their adhesion to the core."

But the plaintiffs used the very same device, whatever purpose they assigned to it, and use it so thoroughly that the thread or braid is forced into the lead core. Mr. Blakesley thought that this was done for one reason to cause a more perfect cementation.

See Blakesley's testimony, Q. 47–50, page 89.

> "Q. 47. From your knowledge of dextrine should you expect that, in this application of it, it would in time lose its adhesive properties?
>
> "Ans. I should expect that it would.

"Q. 48. Please examine one of the crimpers from complainants' 'Exhibit A' and see if you find anything besides the cement for holding the covering to the core?

"Ans. I do. I find the thread is imbedded in the lead.

"Q. 49. To what extent should you say the imbedding of the thread in the core assists the cement in holding the covering in place?

"Ans. I think it is largely due to the indentations in the lead. The thread being so buried as to cause it to adhere full as much as the cement."

"Q. 50. Please examine the complainant's crimper and state how, in your opinion, it compares as to cementing alone, with the continuously cemented crimper which you made in 1876?

"A. I don't think it any more strongly adheres than mine."

Mr. Heysinger goes into a lengthy and labored explanation of of this, and attempts to refute the reasoning at page 26, Q. 16.

It seems to us that it is immaterial so far as intention, purpose, object, or theory go.

The fact that Blakesley in 1876, and the plaintiffs several years afterwards, both ran their crimpers through rollers, whether for purposes of feed, or stripping, or what not, is of small consequence. Both used the mechanical means suitable for accomplishing their purpose. What Blakesley produced was the same as that afterwards produced by the plaintiffs. That is the important fact.

The plaintiffs thus imbedded the fibre into the lead, a fact plain to observation of any one, as an inspection of any one of the exhibits shows, and there is no question but that the plaintiffs also in this way stripped off the surplus dextrine. Plaintiffs say so. Blakesley honestly says that was his purpose in using them.

The plaintiffs seem to lay great stress on the fact that Mr. Blakesley represented to defendants that he had a two years' old patent on the crimpers he was selling then. (Record p. 17.)

What the defendants said to plaintiffs we are not interested in, but Mr. Blakesley's statement on the subject is perfectly clear, reasonable, and consistent. See Blakesley's testimony, Record p. 90, Qs. 56 and 57.

"Q. 56. What conversation have you had with Howard M. Giles, one of the defendants in this case, respecting your rights in the premises, against those of other parties?

(Objected to as immaterial.)

A. The first time I ever called on the gentlemen, I stated that I had a patent applied for, and also that I made the goods of a strip of metal covered more than two years prior to the date of the application of the Madame Louise crimper patent. That was the sum and substance of my remarks as to what I considered my rights in the matter.

Q. 57. Did you or not ever state to Mr. Giles, prior to the institution of this suit, that you had a patent on crimpers antedating the Madame Louise patent by two years?

(Objected to as immaterial.)

A. I did not."

THE WITNESSES.

An effort has been made by the plaintiff all through the case to cast suspicion upon the facts testified to by the defendants.

For Defendant. We resent this. The defendants' witnesses are Wright Blakesley, Carrington, Mrs. Paul, Miss Bracken, Miss Sikes. It is apparent that they are all New Englanders, accustomed to work, respected and honored in the communities in which they live.

They do not testify to theories or opinions, but to facts. Those facts are undisputed, consist one with the other, and together form a natural, coherent story of the development of a small industry, so characteristic of our New England towns. With the exception of Blakesley they have no possible interest in the suit.

For Plaintiff. *First.* Christian H. Hershey testifies to formal matters which do not affect the questions here at issue.

Second. The chief witness is Isaac W. Heysinger. He is the real complainant, was the attorney who arranged about assignments, who procured the letters patent in suit, is the witness, expert, and counsel, and supplies the facts, theories, arguments, and a vast amount of general information. With all this it appears that he is a practising physician.

He and Hershey were both members of the Philadelphia Novelty Manufacturing Company, which appears to be a partnership, and is the real complainant.

See Hershey's testimony, p. 13, Q. 4.

> "Q. 4. Is your firm, the Philadelphia Novelty **Manufacturing** Company, the sole manufacturers of these crimpers?
>
> "Ans. Yes, sir."

Heysinger's testimony, p. 18, Q. 1.

> "Q. 1. What has been your experience in the manufacture of hair-crimpers and your knowledge thereof generally?
>
> "A. 1. I have been engaged in the manufacture of the Mills & Hershey hair-crimper, the crimper on the letters patent of which this suit has been brought, since about 1880. I was, however, well acquainted with the manufacture of this crimper from the time it was first put upon the market and before, that is, from the time of its invention by Mr. Hershey and Mr. Mills. I acted as counsel and adviser to some extent for Mr. Hershey, who was a personal friend of mine and in whose family I practised medicine, they being patients of mine at various times. I made the arrangement with Mills for the assignment of his interest to Hershey, and was the attorney who made application and produced letters patent for Mr. Hershey and J. L. Heysinger for this crimper."

Same, p. 33, X-Q. 40.

> "What is the nature of your connection with the Philadelphia Novelty Manufacturing Company?
>
> "Ans. I am full partner in the company; the company now consists of my brother and myself; before Mr. Hershey's death he was an equal partner."

For the other details see Heysinger's entire testimony, which is certainly a curiosity in its way.

What we desire most respectfully to urge upon the attention of the Court, however, is this:

Isaac W. Heysinger does not testify to facts, that is, of course, so far as the issue is concerned. The details of manufacture and his relationship to the parties do not require examination.

He testifies to theories. He desires to make certain theories good and he makes an argument to justify them. That sort of testimony from one who manifestly is to be the chief beneficiary of this suit is worthless, especially when pages of it are plainly refuted by the facts as shown by the character of the cement illustrated above.

His interest in the case utterly disqualifies him from the exercise of any other function than that of an attorney arguing his own case under oath.

Third. **William W. Righter is in the employ of the complainants.**

He testifies to the manner in which he performed his duty as to a certain branch of manufacture. He confesses that he has made no experiments which enable him to testify as to the results of the defendant's practice.

Fourth. Henry R. Heyl and Henry Leffman do not appear to have any special interest in common with the complainants. It is impossible to brief their testimony. The purpose of it is to show that the defendant's witnesses testified falsely as to a fact by their expert theories that what the defendants did would not work.

In the case of each, however, it is clearly brought out that they do not know practically whether what the defendants testified to was practical or not, and their testimony as to adhesion is refuted by experience practically, as illustrated above.

We ought perhaps to call attention here to Blakesley's statement, in his affidavit against preliminary injunction, of his views regarding the sticking of fiber to a non-absorbent material such as metal. (Record, p. 51.)

> "In this connection it may be well to mention a fact well known in the arts. I refer to the difficulty, I had almost said impossibility, of securing an absorbent material to a non-absorbent material by the use of an adhesion [cement?]. This difficulty is increased, of course, when the two bodies or materials are to be repeatedly flexed or bent after being cemented together."

The complainants have made great use of this. It obviously amounts to nothing more than Blakesley's philosophy of the operation of dextrine. Blakesley did not apply it to his crimper alone, and it is equally true, if true at all, of the Mills and Hershey crimper.

That Blakesley's theory is true, we submit, is well borne out by the fact, which is apparent and which only requires inspection of exhibits and not testimony to prove, to wit, the loss of adhesive quality in all the exhibits from lapse of time. The best adhesion is very plainly shown by the paper-core crimpers. By the use of this device which Blakesley patented in 1885 and 1886 he overcame what was a serious difficulty and defect in the earlier crimpers of his own make and in the Mills-Hershey crimper.

Dr. Heysinger, whose quality as a witness has been commented upon, attempts to nullify this by his ingenious theory that the paper "acts as a cementing material" (Record, p. 17). This theory seems too ridiculous to require serious consideration. Blakesley gives clearly the reason for this construction, to wit, to secure a core that will be light, furnish sufficient bulk, and provide a good surface to cement the fiber to.

The complainants' theory is ingenious and surprising but is absolutely unsupported by testimony, while the practising in due order of business by Blakesley of the various steps heretofore detailed is conclusively proved and absolutely uncontroverted.

We ought also call attention to the fact that the claim of the patent must be limited by the state of the art as shown by the testimony herein.

Even if the patented crimper should be considered a fuller embodiment than the anticipating crimper of the underlying principle of the article in controversy, considered as a hair-crimper having a soft metal core and a braided covering continuously cemented thereto, the anticipating matter presented by the defendant would lose none of its force, for it is well settled that the carrying forward of an invention, involving merely a perfection of it without departing from its principle, will not sustain a patent.

Smith vs. *Nichols*, 21 Wallace, p. 112.

II.

THERE IS NO INFRINGEMENT.

The Mills and Hershey patent contains two claims, the first, for the product, the second, for a process of producing that product when such product is in a flattened form.

Inspection of the patent shows that the crimpers are formed from a continuous core of lead or other non-adhesive metal, the core being passed through a bath of adhesive material, and while such core is wet with the adhesive material, it is covered by a braiding machine with cotton or other braid. The result is a continuous strip of crimper material, composed of braid cemented directly to the continuous metallic core, which, in turn, is cut into suitable lengths after the cement is dried. The patent states that the non-elastic metal core is "preferably flat," and that "the cement found preferable is a solution of dextrine, with or without the addition of a small portion of liquid glue, though any other cement may be employed if desired."

We quote the following passage: "The spooled lead is taken from beneath D, and passes up through the machine, making a double turn over the rollers E and F, so as to pass through the liquid cement in the cup O, and thence up to the rollers G, between which the finished crimper stuff M″ passes to the reel H. The braid or fibrous covering is laid upon the lead at M′, and the adhesive material, taken up in its passage through the cup O is interposed between the fibrous coating A and the soft metal core C, making a firm adhesion, while leaving the outer surface soft and unsaturated."

It is to be noted in this quoted passage that the lead core passes "through the liquid cement"; that the "fibrous covering is laid upon the lead," and that the adhesive material is interposed between the fibrous covering and the metal core "making a firm adhesion."

The first claim is not for a new combination in an old article in terms (although for that matter the article was old, as has been seen), but is professedly for a hair-crimper consisting of certain parts cemented together, the parts being a non-elastic metallic core immediately within the layer of cement, and a braided covering immediately exterior to the cement. And the second claim, for the process, makes it material that the braided fibrous covering should be "attached" to the core "by means of an adhesive substance."

The crimper of the defendant has a paper core, it being understood that the core is the element that passes through the bath, and to which the braided covering is "attached" "by means of an adhesive substance," as required by the second claim, and to which the covering is "cemented," as required by the first claim.

Enveloped within this paper core is a length of very fine annealed wire which may be made either round or flat, but is flat in the special crimper used to prove infringement. This fine wire strip does not pass through the bath of adhesive substance, and any attempt to supply the crimper stock with the requisite adhesive material by passing the wire through the bath, as in the plaintiff's process, would prove a conspicuous failure. To the paper core is attached and cemented a braided covering.

In Mr. Blakesley's patent, dated April 29, 1884, the paper body and the stiffening wire are described, but in that patent, there being no employment of cement, an attempt was made to hold the braid as well as ornament the crimper by using terminal clips, or tips. We need quote but one passage from this earlier patent, as follows (folio 3, page 2): "In this crimper the *paper forms the body* while the *small metallic wire adds stiffness* or rigidity thereto, and is sufficiently pliable to enable it to be easily bent into any desired shape."

The history and method is best described by Mr. Blakesley in his affidavit, Record, page 50:

> "In the month of August, 1883, I again turned my attention to hair-crimpers, with a view of resuming that business and producing a cheaper article. I had the same braiders which had been used from 1875 to 1879 in making the crimpers, and these machines were set up and put in running order; I also had on hand a quantity of clips and braiders, core strips and stock, which had been left over and stored when I stopped manufacturing the crimpers. My object at this time was, as I have once stated, to produce a cheap article; to do this I found that the core of the crimpers could be relied upon only for retaining the crimpers in shape and not for the bulk required of the crimpers; I also found that it would not do to use a light core and make up the deficiency in bulk by braided covering. Finally, after several weeks of study and experiment I hit upon the idea of getting the bulk required by the use of a paper envelope which should inclose the core. This plan had the advantage besides that of enabling me to get the bulk required at a very slight cost, of offering an absorbent material for cementing the braided covering to."

and see the affidavit further, a part of which is quoted in this brief, *supra*, page 18.

It will thus be seen that at the date of the filing of the earlier patent, to wit, Oct. 17, 1883, Mr. Blakesley regarded the paper stock as constituting the body, while the fine wire constituted the stiffening strip. Figure 5 is referred to in the patent as exhibiting "a detached view of the stiffening strip." We refer to this patent simply to show that the distinction between the office of the paper to support the braid, and the office of the fine wire stiffener in discharging a subordinate function, was asserted by Blakesley long before this litigation began. In any other relation the earlier patent is of no consequence, since it shows merely one of the ways of making a crimper and that Mr. Blakesley thought it worthy of a patent.

It is of the crimper described in the latter patent that complaint is made, *whether or not ornamental tips are employed.*

The expert for the complainant is Mr. Heysinger; as heretofore remarked, his interest in the case utterly disqualifies him from the exercise of any other function than that of an attorney arguing his own case under oath.

But Mr. Heysinger finds it impossible to testify that the defendant has either a metallic core or a braided covering cemented to a metallic core, or to anything of a metallic nature. He characterizes the portion within the braid of defendant's crimper as a strip of brass, with strips of paper as cementing material making the requisite bulk. But to admit that the paper stock is very much the largest part of the core, and that it is the only part of the core cemented to the braided covering, is to admit away the case at the outset. The process of making such a crimper is not "the process of manufacturing hair-crimpers by first flattening soft-metal wire between rollers, then covering it with a braided fibrous coating, attached thereto by means of an adhesive substance, and afterward dividing the material into suitable lengths for hair crimpers, substantially as herein described"; nor is the product a non-elastic metallic core having a braided covering cemented to said core.

III.

THE HISTORY OF THE MANUFACTURE OF HAIR CRIMPERS AS DETAILED IN THIS CASE.

First. In 1875 Wright made in Bristol a hair-crimper with a metal core of copper, a continuously braided covering, a cementation of covering to core at the ends.

Second. In 1875–'76, immediately thereafter, Blakesley, succeeding Wright, made the same thing.

Third. In April and May, Blakesley made crimpers by the so-called bare-metal process. This was a strip of metal, copper or brass, forming the core, passed through a bath of dextrine, a braided covering applied while the strip was wet, the dextrine cementing the covering to the core continuously.

Fourth. Immediately thereafter, in 1876, and continuing on until 1880, Blakesley employed the double-cover process. This consisted of a small strip of brass continuously braided with cotton; this was passed through a bath of dextrine, thence through stripping rollers and braided with silk, the dextrine cementing silk, cotton, and metal strip together.

(*The complainants confess that they saw either the third or fourth on sale in Philadelphia in* 1878.)

Fifth. In 1879, the complainants patented the device in suit. A strip of rolled lead, passed through a bath of dextrine, a covering braided thereon, and the whole passed through rollers.

Sixth. In 1883 (it appears from various sources that Blakesley had had business troubles and there was a two or three years' intermission in his manufacture) Blakesley manufactured a crimper by passing two strips of paper through dextrine, and a fine wire or core stiffener up between these strips, and braiding over the whole. The dextrine cemented the edges of the paper together, holding the core stiffener in place, and cemented the braided covering to the paper core.

Seventh. At the same time Blakesley produced a few crimpers of the same sort as the *Sixth* with the exception that the core stiffener was the old brass strip left over from the *Fourth* kind and of the same width as the paper — it being employed merely to utilize old stock on hand.

The *Sixth* and *Seventh* kinds of crimper are those complained of.

IV.

We most respectfully urge that the decree be reversed and the bill dismissed with costs.

First. The letters patent in suit and the first claim thereof are not infringed.

Second. The letters patent in suit and the first claim are void for want of patentable novelty.

(*a*) The history of the art as summarized under the above seven steps make this clear.

(*b*) The facts are thoroughly established by defendants' witnesses.

(*c*) No testimony to contradict the testimony of these witnesses is introduced by complainant.

(*d*) **Complainants practically admit defendants' facts, but attempt to avoid the consequence by placing a forced and untenable construction upon them by an interested witness.**

(*e*) Blakesley was the pioneer in the art as shown by the testimony.

(*f*) It has been judicially determined that Blakesley was the pioneer in the art.

(1) By Judge Shipman. See 33 Fed. Rep., 922, *supra*, page 5. . . . .

(2) By this Court in affirmance of the above. See 145 U. S. (Jan. 15, 1892).

(3) By Judge Coxe. See 40 Fed. Rep., 584, *supra*, page 6. . . . .

The above involve exactly the same issues.
Priority was also involved in the trade-mark suits.

(4) Judge Shipman, in 37 Fed. Rep., 367, says:

> "The use by the defendant's predecessor, of the woman's head antedated its use by the plaintiff's predecessor."

(5) Judge Coxe, in 40 Fed. Rep., 586, says:

> "Long before the complainant's predecessors had adopted their design, the predecessor of the defendant's vendor had sold crimpers packed," etc.

(6) Judge Shipman confirms the above two opinions on page 588 of the same volume.

(We call attention to a mistake in citation in Judge Shipman's opinion as printed. He refers to the case 39 Fed. Rep., 273, as being practically the same case. That is a case between the same parties on a reissue patent, opinion by Judge Wallace. The reference ought to be 40 Fed. Rep., 585.)

(*g*) Blakesley made and sold an anticipating device more than two years before complainants' patent was applied for.

V.

THE COMPLAINANTS' CASE IS DEVOID OF EQUITY.

Against these adjudications made prior to the decree in the case at bar and the facts which are brought out with sufficient clearness, the complainants can only set off the one decision secured in this case.

That decision is undoubtedly a mistake, whether it was induced by the inexperience of the defendant as litigant, by the mistaken idea of defense on the part of counsel, or by the trial judge comparing freshly-made crimpers of complainants with eight-year-old crimpers of defendants.

We respectfully submit that there is no doctrine of equity which countenances the perpetuation of a discovered mistake, but that it is rather the province of a court of equity to correct the mistake. It surely has been a costly one for the defendant, and will, in any event, be corrected only at great expense to him.

We respectfully submit that the decree of the Circuit Court should be reversed.

JOHN J. JENNINGS,
Of Counsel for Appellant.

Office Supreme Court U. S.
FILED.
DEC 6 1893
JAMES H. McKENNEY,
CLERK.

Record. Case No. 14,106.

Supreme Court of the United States.

October Term, 1893. No. 152.

Howard M. Giles, Elbridge G. Brown, Robert M. Cugle, and Isaac P. Smith, trading as Noyes, Smith & Company,
Appellants.

vs.

John L. Heysinger and the Union Trust Company, Administrator of the Estate of Christian H. Hershey, deceased,
Appellees.

Appeal from the Circuit Court of the United States for the Southern District of New York.

Brief of Argument for Appellees.

AUGUSTUS B. STOUGHTON,
Of Counsel.

A67

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Appeal from the Circuit Court of the United States for the Southern District of New York.

BRIEF OF ARGUMENT FOR APPELLEES.

This suit was brought against Noyes, Smith & Co., of New York City, for infringement of the Mills & Hershey patent for improvement in Hair Crimpers, No. 218,300, granted August 5, 1879. The manufacturer of the infringing goods, for the sale of which Noyes, Smith & Co. were agents, was Gilbert H. Blakesley, of Bristol, Connecticut, then unknown, and, it is believed, financially irresponsible.

The Mills & Hershey patent was for an improvement in the manufacture of Hair Crimpers, and contained two claims, the first for the product, and the second for the process of manufacture.

The defendants, being merchants and sellers of the patented crimpers, and not manufacturers, it is claimed that they infringed the first claim only of said patent. The improved hair crimper, as set forth in the specification of the Mills & Hershey patent, consisted (specification, page 1, lines 26 to 36)

> "essentially of soft, non-elastic metal, preferably flat, covered with a fibrous coating cemented thereto, so that when cut into proper lengths for use, the ends will not fray out, but remain the same into whatever number of pieces the *crimper* may be divided, thus rendering it especially adapted for use with children, where *crimpers of different lengths* are often required, while at the same time greatly simplifying and cheapening the cost of manufacture."

It is further said (specification, page 1, lines 62 to 73)

> "the braid or fibrous covering is laid upon the lead at M', and the adhesive material, taken up in its passage through the cup O, *is interposed between* the fibrous coating A, and the soft metal core C, *making a firm adhesion*, while leaving the *outer surface soft* and unsaturated. Were the fibrous surface thoroughly saturated with adhesive matter, the crimper would be comparatively useless, *as the least moisture in the hair would cause its adhesion* thereto."

The mode of application of the patented crimper to the hair is described (specification, page 1, lines 21 to 25) as follows:

> "This hair crimper is intended to be applied to the hair in the manner of the crimping papers formerly in common use, the ends *being turned under out of sight*, and the hair retained by the folds thus made."

As a matter of practice in curling or crimping hair by cold, instead of heated curling or crimping devices, the strands of hair are moistened before being folded into their desired form: when dry they retain the curl, twist, or crimp thus artificially given them.

The first claim of the patent is as follows:

> "A hair crimper consisting of the non-elastic metallic core C, and braided covering A, said covering A being cemented to said core C throughout its entire length."

The process of manufacture is fully described in the specification. What is known as "gardener's lead," a wire of this soft metal, is rolled down flat; it is then put through a braider, first passing, as shown at Fig. 4 of the drawing, through a cup of solution of adhesive substance, a solution of dextrine being preferably used, and this adhesive substance moistens the bare metal strip as it passes through the same and the bare metal strip carries sufficient of the solution up with it, part of the same running backward, of course, as the strand ascends, and the bare metal strip then passes through the braiding machine which braids over this strip of soft metal (while still wet with the cementing solution) a braided covering of fabric which is immediately cemented fast to the soft metal core strip, as it dries. The soft metal core having the braided covering of fabric cemented to it passes up to a reel, and when this is full it is removed, the product left to dry, and then cut up into suitable lengths for individual crimpers, and bundled and boxed for the market. It will be observed that the method of applying the cement causes a direct adhesion between the *inner* surface of the braided covering and the metal core, and leaves the outer surface of the braided fabric, as described, specification, page 1, line 68, "*soft* and unsaturated." This softness and freedom from saturation with cement is an essential feature, as will be seen when it is considered that strands of hair frequently wet are to be twisted about the crimper under strain, and then bent and further strained by the folding under of the ends of the crimper, in order to cause the hair to be retained in place by the ductile and non-elastic metal ends when folded, with the result that when the crimper is unfolded and pulled out endwise, the hair retains this bent or reversed direction, curl or set. Individual hairs are easily snapped off, and without this soft outer surface in course of time the user would find her hair disappearing, which, of course, would lead to the discarding of the crimpers as injurious instead of beneficial. The second, or process, claim of the patent in suit is as follows: "The process of manufacturing hair crimpers by first flattening soft metal wire between rollers, then covering it with a braided fibrous coating *attached thereto* by means of an adhesive substance, and afterwards dividing the material into suitable lengths for hair crimpers, substantially as herein described."

The essential element in this process claim, as well as in the actual production of the patented article, is that of attaching the "*braided, fibrous coating*" to the soft metal core directly by an adhesive substance, which results in the production of the article which forms the subject-matter of the first claim. The *flattening* of the wire is essential to the manufacture of a *flat* hair crimper, and the cutting up of the finished crimper lengths into hair crimpers is also essential to the completion of the process of manufacture, but these parts of the process may be, of course, used in other manufactures, but the essential element in the complete process is the cementing of the braided, fibrous cover directly to the central soft metal core strip (page 131, Record, nineteenth finding of fact by the Master), not incidentally, nor accidentally, but designedly, so as to produce a hair crimper such as is described in the specification, and claimed in the first claim of the patent.

Defendants in their answer relied upon several defenses: First (page 7 of Record), prior knowledge and use; second, they denied that the Mills and Hershey patent "was issued according to law;" third, they denied that "complainants have applied the said improvement to great practical use, and they deny that the complainants have been, and but for the infringement in the bill of complainant complained of would still be, in the undisturbed possession, use and enjoyment," thereof; and, fourth, they deny infringement and allege that their "crimper is different in its entirety, but in some parts substantially the same in construction and operation."

They admit in their answer, page 8 of Record, that their crimpers consisted "of a fine strip of wire or metal enclosed in a bulky envelope of paper, having a braided covering *cemented to it and throughout its length.*" Blakesley, the manufacturer and principal witness for the defense, page 51 of Record, states that these crimpers of 1883, upon the sale of which suit was brought, had for their cores at first what he calls "broad stock," and which he afterwards replaced by what he called "narrow stock." His broad stock he also described, page 51, as "broad brass stock." On page 49 of Record, top of page, he described the metal as consisting "of a soft or non-elastic core," made from "long strips of sheet metal." An inspection of Defendants' 1883 crimper, an exhibit, will show that all their core strips were of flat, soft, non-elastic metal.

The answer also recites as witnesses to be called to establish Blakesley's prior use the following:

"(1) Gilbert H. Blakesley, (2) Julius Wright, (3) Edward L. Carrington, (4) Lora W. Robinson, (5) Sophia C. Bracken, (6) Louise Bracken, (7) Mrs. Helen H. Tyler, (8) Mrs. Henry Clay Butler, (9) Miss Augusta Churchill, (10) Mrs. Helen M. Palmiter, (11) Mrs. Elizabeth M. Sikes, (12) Miss Henrietta Sikes, (13) Mrs. Henry Paul, (14) Miss Maria A. Blakesley, (15) Mr. George Stevens, (16) Mrs. George Stevens, (17) Miss Minnie Stevens, (18), Miss Nellie Wright, (19) Mrs. Julius Wright, (20) Mrs. Nattalie Raabe, (21) Mrs. Carrie Maeburse, (22) Mrs. Minnie Daly, (23) Mrs. George H. Gowdy, (24) Mr. Timothy Robinson, (25) Mr. Frank Hubbell, (26) Mr. Hiram

Wilcox, (27) Mr. Edward Curtis, all of Bristol in the County of Hartford and State of Connecticut; (28) Mr. Thomas Porter, (29) Mrs. Thomas Porter, both of Montclair, New Jersey; (30) Mr. Henry C. Robinson, residing at No. 504 East 87th Street, New York City; (31) Mr. Joseph L. Porter, residing at No. 504 East 87th Street, New York City; (32) Mr. Joseph Maria LaForgue, of Ansonia, Connecticut, and (33) Mrs. Nettie Burr, of Meriden, Connecticut.

Of this formidable list of thirty-three witnesses, defendants called numbers 1, 2, 3, 5, 11, and 13, six in number, of whom Blakesley, the manufacturer, was one.

The remaining twenty-seven, or more than four-fifths of the whole lot, were not called as witnesses—the inference is irresistible that they either did not know enough of the matter, or that they knew too much. The affidavit of Geo. D. Seymour, defendants' counsel, pages 105 to 108 of Record, clearly shows that it was not his fault or that of Mr. Blakesley that all the knowledge possible to be brought out of these witnesses was not gotten out. The progress of the case will show the sort of witnesses desired, and incidentally, perhaps, why the remainder were not called to testify, as twenty-seven of the thirty-three resided in the small town of Bristol, and two of the others near by.

PRIOR USE.

No effort was made by defendants to disprove that the Mills & Hershey patent was properly granted, and the real defense relied upon was prior knowledge and use by Blakesley from 1875 to 1879.

An application was made by complainants for a preliminary injunction, and in opposing this motion affidavits were filed by Blakesley, Wright and Carrington, which are exhibits in the case (see page 34 of Record), and are to be found in the Record, pages 48 to 57. These affidavits " purport to give a full history of the manufacture of crimpers by Blakesley" (see opinion of Judge Wallace, page 95 of Record). Their importance will become manifest as the review of the case proceeds.

The undisputed testimony in the case, and the affidavits filed by defendants against the motion for preliminary injunction, as embodied in the printed Record, pages 48, 54 and 55, clearly establish that Blakesley, in Bristol, Connecticut, during the year 1876 and subsequently up to 1880, made some sort of a hair crimper as a development from a garter which he had manufactured in 1875 and subsequently. Two kinds of these crimpers are clearly described and the manufacture thereof by Blakesley in 1876 and subsequently is not disputed by complainants. The first of these, which was the logical outcome of the garter, and which substantially followed that article in its method of manufacture, consisted of a long strip of flat copper or brass over which was braided, in an ordinary braiding machine, a continuous covering of fabric, scarlet silk, in fact; and this long strip then laid upon a table was daubed with a brush upon the outside of the braided covering at intervals corresponding to the length of the individual crimpers, with a solution of dextrine, and these daubed spots having been dried, the long strip was cut into crimper lengths, at these daubed spots, and over the free ends were secured little metallic tips or clips, which held the braided covering from slipping longitudinally or otherwise upon the matallic strip contained within. The function of the daubed spots was to SIZE together the threads at the cut ends and prevent them from spreading apart by the elasticity of the threads of the fabric, when cut, so as to enable a metallic tip or clip to be swaged on, which otherwise would have been impossible, the braided covering not only fraying out, but also slipping back along the smooth metal strip when pressed against by the metallic tip preparatory to swaging down the same. This was the precise method used in the garter, except that a coiled spring was used for the length instead of a flat brass strip and little "spuds" of flat brass or copper were inserted into the continuous length of material to be braided, the coiled springs having been previously cut into lengths suitable for garters, and crushed down upon the brass spuds, which connected the separate lengths of spring, and thus made a continuous length to be braided in the braiding machine just as the length of crimper stuff was afterwards braided. These continuous lengths were daubed upon the outside by a brush with a solution of dextrine, at the spuds only, and when dry were cut apart at the "spuds," one-half of each spud going to the end of each garter, and a metallic tip or clip, having a hook and eye or the like alternately, was then swaged onto the projecting braid-covered and daubed spud. The purpose of this daubing is clearly set forth by Blakesley in his answer to XQs. 67, 68, 69, 70 and 71, pages 91 and 92 of Record, and that it was essential is shown in his answers to XQs. 74 and 75, same page of Record. See also the testimony of defendants' witness, Julius Wright (page 73 of Record), answers to Qs. 3, 4, 5, 6, 7, 8, 9, 10, in which he, for Wright, was the real and first inventor of the garter, and Blakesley was his successor, describes the purpose of the daubing of the garters with dextrine solution at intervals, over the spuds, as follows: "In order to cut them up and not have it fray out we had to use dextrine. They were then ready for the clasps to be put on, then to be packed and put away (Q. 3)." "We could not have cut up the covered coil without the use of dextrine without having the covering fray" (Q. and A. 4). "The silk would all be fringed out that was cut, and some of the threads wouldn't be cut, but would pull down between the shears" (Q. 7). "The cement held the silk in place while we put on the trimmings" (Q. 9). "The main object was to secure and stiffen the silk so that it would cut off clean, without fraying or pulling" (Q. 10).

Blakesley says, in answer to XQ. 69, page 91 of the Record, "I don't think the dextrine served any useful purpose in the completed garter."

The above clearly fixes the purpose and function of the dextrine daubed upon the spuds in the garter, it was to stiffen or size the braided covering so as to facilitate the cutting into lengths of the garter material and the application of the metallic clips or clasps to the cut ends; in other words, it was to facilitate the manufacture, and was of no use in the finished product. Moreover, Wright testifies, in answer to Q. 14, page 74 of the Record, "In the first place, I had copper rolled down to the proper thickness; then it was sheared up; it was then put onto a reel and run up through the braider and braided with silk. Then I had this taken off a reel and stretched out on a bench, and at certain lengths that I wanted to cut the crimps, I used the dextrine with a brush *for the same purpose that we did for cutting up the garter; that is, to assist in cutting up.* Then these that I made I made a little brass tip, as I called it, *which I put on* to give the crimper a finish or ornament, whichever might be proper."

It will be seen that this tip was the analogue of the clasp of the garter, which was put on in the same way, and the daubing of the ends was done to enable these clasps to be put on, and the purpose of the clasps on the garter was to secure the braided covering to the metallic spud or strip within (see Wright's testimony, answers to XQs. 90, 91 and 92, page 81 of Record). "The braiding was continuous over the wire and spuds, and the braiding and the spuds at the middle were severed by shears, and the clasps afterwards attached to the spuds over the surface of the cut end of the braid." "After the clasps were applied and swaged on, it was all covered with metal. The whole spud was covered by the clasp, so that it was all out of sight. What it done when it was under I couldn't tell you." "Except in the cutting and the applying of the clasps, I don't consider that the dextrine was of any use in that place."

Of course, defendant's counsel was not satisfied with Wright's answer to Q. 14, page 74 of the Record, in which the witness stated that he used the dextrine in his crimpers for the same purpose as he did in his garters—to assist in the cutting up, and that after enabling them to be cut and the end clasps applied, the dextrine was of no further use. So he called the witness' attention to the fact that he was not doing his full duty to his friend and patron, by significantly and impressively asking Q. 15. "*Will you state again* your object in applying the cement to the crimper strip?" Why state it again, it may be asked, as any mechanic would know by the exact parallelism of the manufacture of garter and crimper, that the use in one way was the use in the other, and the absence of use in one was the absence of use in the other. So the witness who at once perceived that his reply was, as he aptly expressed it in answer to XQ. 68, "unsuitable to the occasion," made it suitable by answering that the object was not the same, but quite a different one, namely, "to adhere the silk to the metal, and stiffen it, so as to cut it." This is the sort of testimony complainants have had to meet all through this case, and his Honor, Judge Wallace, very properly cut the Gordian knot of discrepancies by reverting to the affidavits, pages 48 to 55, and applying principles of law as well as of common sense in determining the questions of fact, since every possible aspect and every possible change of position, contradiction and variation of testimony is to be found in the subsequent depositions of the affiants to the affidavits, the depositions, it is to be hoped, being inadvertently presented by the defense. One cause of the difference in the statements made by the same witness, may possibly be found in the length of time which elapsed from 1875 and 1876 to 1884, during which no questions arose such as are involved in this case, and in which memory, at best treacherous, and especially when dealing with apparent resemblances, was apparently refreshed, but really interpreted by the exhibits of complainants' crimpers with actually adherent coverings and presented more than eight years after the events had occurred about which the witnesses were examined. The remarkable discrepancies and contradictions between the affidavits filed against the motion for the preliminary injunction, pages 48 to 57 of Record, and the subsequent testimony of the same affiants and the still more grotesque affidavits filed on motion to reopen the case, pages 97 to 103 of the Record, as interpreted by the very remarkable affidavits of defendants' counsel himself, pages 103 to 108, show conclusively that in this whole case a vague and indefinite memory, frequently forced, has been evolved into a positive and an unequivocal recollection of what, we shall find, Blakesley himself, the actual manufacturer, never discovered till brought to his notice, in contradiction of his own affidavit, by his witnesses, who doubtless were willing to do all they could to help an old friend and neighbor, and especially to preserve among them a manufacture which otherwise would go to benefit unknown parties in a distant State. Upon no other hypothesis can the testimony be reconciled with the facts.

So much for what is known in this case as the "daubed process crimper," and which Blakesley has testified (answers to Qs. 12, 13, 14, 15 and 16) Wright made for a month or so, and which Blakesley took up in the *spring* of 1876. This would carry the beginning of Wright's manufacture of the crimpers only back to January or February of 1876, and Wright corroborates (!) this (page 75, answers to questions 18, 19, 20, 21) by saying that he was engaged in manufacturing them for a month or two, and "got through in the *fall* of 1875, and that Mr. Blakesley went on and manufactured them, and that in the spring of 1876 he was up at Blakesley's factory," and saw him using a different process, which will be referred to hereafter as the "bare metal process." It will be seen that there is a discrepancy here of dates, which shows the unreliability of mere memory unsupported by fixed dates in arriving at the particulars of incidents and supposed events occurring so many years before. That Blakesley is probably correct, however, in his dates, and Wright in error, is shown in Wright's affidavit (page 55 of the Record), in which he fixes his sale of the crimper business to Blakesley in the spring of 1876. It is therefore likely that Mr. Wright's memory is treacherous, and not that of Blakesley. We now come to the advent of the so-called "double covered process." This change in the method of making the crimper is clearly, and doubtless truthfully, set forth in the utmost detail in the affidavit of Gilbert H. Blakesley himself, who made the change, provided the mechanisms, and carried on the business. If any one could possibly know anything and everything about it, it must have been Blakesley, and if he had forgotten, it is impossible to see how others, not at all interested, could remember. Blakesley gives the history of the introduction of this method of manufacture, and of the double covered crimper, as follows (page 49 of the Record):

> "In the spring of 1876 I began applying a double covering to the crimpers; this consisted of an outer covering of silk and an inner covering of cotton, and involved two braiding operations; the object in using a double covering was to increase the bulk of the crimping without increasing the size of the core; it was desirable to use a light core because of its cheapness, and also on account of its greater capacity for bending without breaking than a heavier core; with this double covering I found difficulty in gumming the long core strips; the increased bulk of the braided covering required more mucilage, and hence more time to apply it; it also required more time for drying; this led me to look for some other way of applying the gum. Some time in the early summer of this year I devised the plan of running the core strip through a bath of dextrine after it had received the covering of cotton with the mucilage, and *thus prevented from fraying out when the core strip was cut up.* After passing through the bath of dextrine the core strip was passed onto a second braider, where it received the silk covering, the same adhering to the gummed cotton covering; after receiving the silk covering, the core strip was reeled and dried, and afterwards cut up into lengths by a power machine. I found after putting this plan of putting the core strip through a bath of dextrine on its way from the cotton to the silk braider into operation, that the cotton covering took up too

> much mucilage, and especially late in the day when the same had thickened. To avoid this, I fixed up two rollers through which the core strip was passed before entering the silk braider; *these rollers stripped off the excess or surplus gum.* The bath of dextrine was contained in a small pan having a roller journalled in it so as to be entirely or partially immersed in the mucilage; the pan was placed on a small shelf located beneath the braiding machines, and the core strip was passed under the roller journalled in the pan, as referred to. After the core strip received the silk covering, it was allowed to dry and then cut up, as I have before explained; *as the covering was cemented throughout the length of the core strip, the same could be cut into crimpers of any desired length without any fraying of the covering;* the crimpers were trimmed with *silver-plated clips* and packed in attractive slide boxes. In *trimming the crimpers* and in packing them, *I followed Mr. Wright*, thinking with him that in introducing a new article it was desirable to make it as attractive as possible."

The above is a clear, concise and complete history of Blakesley's introduction and manufacture of the double covered crimper. It will be seen that it was substantially the Wright crimper ("daubed process") with a process of manufacture added to enable the double coverings of the double covered crimper to be sized together so that the long strips could be cut up and the clips applied to the ends. He says that by this process the "covering * * was thus prevented from fraying out when the core strip was cut." "*The covering was cemented throughout the length of the core strip,*" so that "the same could be cut into any desired length without any fraying of the covering." "The crimpers were trimmed with silver-plated clips." "In trimming the crimpers, * * I (he) followed Mr. Wright." It should be noted that while he says that "the covering was cemented *throughout the length of* the core strip," he does not say that it was cemented to the core strip, and evidently does not mean that it was, for on page 51 of Record, in referring to cementing of absorbent to non-absorbent surfaces, which is, he says, so very difficult to do, he uses entirely different language—"the covering *when* cemented throughout its length *to* the core strip." Now, did he cement the covering to the metal core or size the two coverings together? Obviously, if the former, he would have put the cement on the core strip, and not outside the cotton covering. It may be answered that thus the two coverings would not be sized together. But if the mucilage applied outside the cotton covering did, as Blakesley subsequently, *but not in this affidavit,* testified to, penetrate inward to the metal core, it is equally obvious that it would, if applied along the core, have penetrated outward to the silk covering. But Blakesley, in his affidavit, pages 102–3 of Record, states that "the silk employed being delicate, was *sometimes* stained by the penetration of the cement *through* from the metal to its outer surface. * * * *To save the stained strip,* I hit upon the plan of covering it over again, which I did, and produced a crimper having two coverings of silk." The above quotation is merely used here to show that the silk used was delicate, and if stained, required a recovering to *save* it—that is, it was damaged goods. This explains his statement in his affidavit against preliminary injunction, page 50: "The cotton covering took up too much mucilage; * * fixed up two rollers, through which the core strip was passed before entering the silk braider; these rollers *stripped off the excess or surplus gum.*" Now, what constituted an excess or a surplus? We know that the outer silk covering was delicate, and that the mucilage was applied outside the cotton covering and directly in contact with the delicate silk covering, and that it was necessary to strip off the excess or surplus gum so that it would not strike through and ruin the outer delicate (and doubtless expensive) silk covering. We are asked to believe that after so much surplus was stripped off that what remained would not soak outwards or penetrate through the silk it was still ample to soak inward and penetrate the heavier and bulkier cotton inner covering and cement the latter to the metal core. And this was not an easy thing to do, for Blakesley in this same affidavit says (page 51 of the Record): "In this connection it may be well to mention a fact well known in the arts. I refer to the difficulty, I had almost said impossibility, of securing an absorbent material to a non-absorbent material by the use of adhesion; this difficulty is increased, of course, when the two bodies or materials are to be repeatedly flexed or bent after being cemented together. A critical study of a hair crimper will show that, as a matter of fact, the covering, when cemented throughout its length to the core of the crimper, is prevented from fraying out rather from the adhesion of the strands together than from their adhesion to the metallic core."

As he says just above this that one of the advantages of his more recent crimper (that of 1883–4) is that "of offering an absorbent material for cementing the braided covering to;" and as the inner and outer coverings are both absorbent, would Blakesley, if he were really endeavoring to cement his braided covering to his metallic core, have applied the cement outside the cotton covering, the cementing of which to the silk, Blakesley says was easy, instead of between the absorbent cotton and non-absorbent metal core, where the cementing was, Blakesley says, so difficult as to be almost impossible? What would be thought of the sanity of a man who should endeavor to affix postage stamps to mail matter by moistening their outside faces, instead of the gummed sides which are to be secured to the envelope?

As a matter of fact, none of the witnesses, either for complainant or defendant, state that the covering in the exhibits of Blakesley's double covered crimpers adhered to the metal. Mrs. Paul, answer to XQ. 31, Record, page 59, examining one of Defendant's Exhibits No. 1, replied: "I don't know as the cotton was cemented to the metal." On repeating the question, she gave it as her opinion "that when that crimper was made the cotton was cemented to the metal;" and in answer to XQ. 33, she supposed "that it was made as thousands of others like it were made, and if so it must have been cemented to the metal." In answer to XQ. 34, she replied, on further examination, that the cotton braiding does not strip back readily "until the outside silk is taken off." That is the actual position of the case: the cotton and silk were sized together and one supported the other. When the outer or silk covering was removed the support was gone and the cotton covering stripped back—in other words, the adhesion was between the two coverings of fabric, and not between the fabric and the core strip, for in the latter case the removal of the outer or silk covering could in nowise have released the cotton from the metal, or affected the result in any way. So also Sophia E. Bracken, page 67 of the Record, answer to XQ. 13, as to whether she found that the braiding in Complainant's Exhibit X, taken from Defendant's Exhibit 1, does not adhere to metal strip, but readily can be pushed back from the cut end, and is only held at the other end by the clip, replied: "Well, I don't think you can push it back entirely; only a little. I think it can be pushed back as far as the grain or the mass of the silk permits. You can push it back a little way." As the clip held it at one end, this reply means that it could be readily pushed back until the bunched up mass of silk was arrested by the clasp at the end—that is, the adhesion was nothing. Some of the witnesses, Mrs. Paul, page 60; Sophia E. Bracken, page 66; and Carrington, page 63, state that some of the girls in the shop used the double covered crimpers without end tips, and Elizabeth M. Sikes, page 85, that she obtained some from Mr. Blakesley in this condition in 1876, and sold them. Of course, such articles with or without end clips and with or without cementing to the core, could be used for rolling up strands of hair—in fact, the metal strip itself would answer in some sense without any covering, as bits of simple soft metal or paper had been used for such purposes. But this use was purely accidental as well as imperfect, for Blakesley says he followed Wright in putting on the end clips, and Wright says he followed the garter manufacturer, and neither Wright nor Blakesley state that they ever made or sold any finished crimpers without end clips. It is a logical inference that the function of the clip in the garter was (excepting its hook and eye) precisely that of the clip in the Wright crimper, and that in the latter the same as in the Blakesley double covered crimper. Besides, the inference on the part of a witness friendly to the defense would be in favor of the occasional employment of such imperfect crimpers, if such evidence was deemed requisite, because before the clips had been put on, which was in a late stage of the manufacture (as Blakesley showed some of them to Wright in process of manufacture when Wright visited his shop soon after Blakesley began the manufacture of these double covered crimpers, which were then without tips), the articles of course had no clips ; and so if a clip were lost or broken, the remainder could still be used for a time, and that the girls in the shop used such waste pieces about the shop, which cost nothing, in preference to finished crimpers, which were articles of value, is not surprising. Such devices are in constant use, as employes might use bits of wire for dress fastenings in button factories, but this certainly would not tell against the utility of buttons. As for Mrs. Sikes, who said she paid Mr. Blakesley for such goods, she probably paid very little for them, or else she would have bought the finished goods, which all agree were made up for the market with clips and in slide boxes, etc., etc. Another fact is, as we shall see, that Blakesley, in applying for his patent of April 29, 1884, an exhibit in this case, Record, page 34, applied for October 17, 1883, before this suit was instituted, makes the use of clips essential, and bases two of his three claims on the use of such metallic clips, and he does not limit their use to that of ornament, but says, lines 75–80, page 1, of specification, that they "also prevent the braiding from slipping off or unwinding, which would expose the paper body, and *render it unfit for use.*"

The affidavits filed by defendant in support of motion to reopen the case, which Judge Wallace promptly denied, will be considered hereafter in connection with another branch of the case. None of these affidavits relate to the double covered crimper.

The evidence so far conclusively establishes the facts that the daubed process crimper was the outcome of the garter, and that the daubing was for the purpose of preventing the freshly braided strands of silk, by sizing them together, from spreading out, or fraying, before the metallic end clips were applied. There was no cementing along the length of the crimper, and when the end clips had been applied, the function of the mucilage ceased. It was, in other words, an incidental use, the sole use being for details of manufacture and not for the completed crimper. Claim 1, of complainant's patent, Mills & Hershey patent of 1879, does not claim any specific process, but only the finished product as a new article of manufacture.

The evidence also establishes the further fact that the double covered crimper was owing to the need, believed by Blakesley to exist, of a crimper having a thicker covering and a core not less flexible and not more expensive. He proposed and begun to use in making these double covered crimpers the old daubing process, but found that it required too much gum to strike through so as to successfully size the cotton braid beneath to the outer covering of silk, and that this additional gum required too long to dry. He then resorted to the use of a simple sizing machine, such as was in general use for sizing or overlaying hoopskirt braid, to make it waterproof or the like—that is, he passed his braided cotton through a sizing bath of the same material as he had used for daubing. He found that it was too thick, as it ruined or damaged his delicate outer silk covering which he applied immediately afterwards, and while the cotton was still wet. He then stripped off the surplus until it would not saturate the silk, but only make contact with and size the under surface of the silk (and consequently the outer surface of the cotton). Blakesley did not believe that the absorbent cotton could be cemented to the non-absorbent metal, even if he had wanted to, which is conclusive proof that he never tried in any effectual way, for the whole Mills & Hershey patent is based on the fact that it will adhere strongly, and that no end clips are required, and the complainant's witness, Hershey, swore (Record, page 13) that up to July 25, 1884, complainant's had made and sold from FIFTY THOUSAND to SIXTY THOUSAND great gross of such crimpers, making an aggregate of MORE THAN ONE HUNDRED MILLIONS OF INDIVIDUAL CRIMPERS. The fact is established of the double covered crimper in the language of Judge Wallace (Record, page 95), that "Blakesley immersed his braided covering in dextrine, not in order to cement it to the core, but to enable the material to be cut without fraying out. The adhesion of the strands together, and not their adhesion to the core, was the object he had in view. It was undesirable to saturate the covering very thoroughly, because he adopted means to remove any excess of dextrine. The exhibits produced show that there is no appreciable adhesion between the covering and the core. None of the witnesses had any occasion to notice particularly whether there was any adhesion between the core and covering, and their testimony in this behalf is merely the result of their impressions."

To this it may be added that these impressions of witnesses were received after a lapse of from eight to nine years, and in direct light of the Mills and Hershey patent, based on such adhesion, when properly produced, and of complainant's exhibits, the coverings of which unquestionably did adhere. In other words, the nine-year-old inferences became facts, when compared with what was accomplished by Mills and Hershey.

With the daubed process crimper, and with the double covered crimper, as made by Blakesley, complainants have had no controversy. It was never contended that such crimpers came under the terms of either of the claims of the Mills & Hershey patent, or could be construed (in the absence of direct adhesion of the covering to the core along the same) as an infringement of said patent. It was this discovery, as the case proceeded, which caused the defendant to make an entire change of base, abandon his whole position and take up a new line after the preliminary affidavits of Blakesley, Wright, and Carrington, and after Mrs. Paul, Carrington, Miss Bracken, Carrington again, and half of Wright's testimony had been given, which fastened them immovably to their former line of defense, and which rendered, after due analysis, their new position not only untenable but absolutely false. Defendants abandoned the defense of the daubed process crimper and the double covered crimper, and in lieu thereof took up the position that in 1876 Blakesley manufactured the Mills & Hershey crimper outright, by the same process as that described by Mills & Hershey in their patent, and produced the same article,. except that it had a flat brass instead of a flat lead core, the Mills & Hershey patent claiming soft metal as the material. Of this change of base, Judge Wallace, page 95 of the Record, says: "The theory that Blakesley made also by immersing a strip of metal in dextrine and then covering it, as testified to by him and by Wright, is refuted by the omission of both Blakesley and Wright to mention the fact in their affidavits used to oppose a motion for a preliminary injunction in this case. Those affidavits purport to give a full history of the manufacture of the crimpers by Blakesley, and the omission to state what was so important, if true, is significant. No explanation has been given of the failure to state the facts." (Page 95, folio 174, Record.)

No sufficient explanation could have been given, for the Record of the case presents a threefold proof, direct, positive and conclusive, that no such manufacture had any existence in fact, or could have had any. It was, if any part of the defendants' case is worthy of belief, utterly impossible, and if no part of their case is to be believed true, then, of course, the whole defense falls to the ground. While we may not demand absolute consistency, we must at least ask for testimony which would not contradict itself directly, on the broadest lines, each witness contradicting the other, and each contradicting himself on every essential point, processes altered, changed, reversed, everything abandoned in the utmost confusion in a wild rush for cover, when the whole case from beginning to end shows that no such cover had an existence except in the desires of the defendants to get their new records in some sort of shape; and subsequently a notice to reopen and with forced affidavits to facts which the affiants could not have known; the entire avoidance of other facts, which they must have known if they knew anything about the matter at all, and finally the affidavits of defendants' counsel himself that not one of their supplementary affiants had known or remembered anything at all about the matter during this long interval (at that time nine years or more) of any importance, until after many visits, interviews, and urging, the witnesses were induced to recollect the facts so strongly desired. The Circuit Court for the Southern District of New York put its quietus on this manufactured evidence very quickly, see page 108, of the Record, "Motion denied July 9, 1885, Wm. J. Wallace." The Court could have done nothing else. It is difficult to believe, in view of the affidavit of Seymour, defendants' counsel, page 105 to 108 of the Record, that these affidavits were to be taken seriously. If so, while there is plenty of proof of panic, there is no evidence of strategy, tactics, or position.

The threefold proof which establishes the fact that Blakesley's alleged use of the "bare metal bath process," so called, was impossible as well as untrue, is to be found: first, in his history of the manufacture by himself from 1875 to 1883, set forth in the greatest detail in his affidavit against the motion for a preliminary injunction, pages 48 to 53 of the Record, and in connection therewith the affidavits of Wright and Carrington, pages 54 to 57 of the Record; second, the Letters Patent which Blakesley applied for October 17, 1883, and which were granted him April 29, 1884; and, third, in the fact that he abandoned the manufacture just when complainants' crimper was becoming a very important and profitable article of trade, when they had conquered all discouragement, and were to be found for sale in every part of the country, and in the very stores, Porter Bros. & Co., of New York, in which he had been selling his garters and crimpers hitherto. (Page 50 of Record.)

Blakesley in 1879 (page 50, Record), abandoned the manufacture with a stock of braiders, core strips, and stock on hand, which he stored away until August, 1883, when he brought out a different crimper (as he states, page 50, Record), his "object being at this time to produce a cheap article." Surely the Mills & Hershey crimper was cheap enough, as Hershey, page 15 of the Record, states the price at which the Mills & Hershey crimper was sold to be $2.40 per great gross, which is considerably less than a cent and a half a dozen. As Blakesley's crimpers, described in his patent of 1884, required clips, and as Blakesley used a brass instead of a lead core, it is certain that Blakesley could not produce them as cheaply as the Mills & Hershey crimpers, which, if his testimony and that of Wright as to the "bare metal process" was true, he knew he had a perfect right to make. Surely the success of the Mills & Hershey crimper was a business warrant for his making it, had he felt that he had any right to do so. It is true that subsequently he used an iron strip instead of brass and dispensed with his end clips, but this was subsequent to his application for a patent (October, 1883) and subsequent to his date of August, 1883, when (as he states, page 50 of Record) he again turned his attention to hair crimpers, with a view to resuming that business and producing a cheaper article (page 51, Record). He commenced with "broad brass stock" (page 51, Record), and "provided the first of my (his) improved crimpers with silver-plated tips" (page 51), so that when he "resumed," the crimper he made was not as cheap as the Mills & Hershey crimper, then abundantly in the market, and which he was at perfect liberty (he now says) to imitate, and that his cheaper crimper came afterwards when he substituted the narrow for broad wire, introduced cement directly (which he does not mention in his patent) and then dispensed with end clips. He thus finally reached the Mills & Hershey basis, but he did not start on that basis, and it is obvious that if he had used it in 1876, '77, '78 and '79, and then used it again after October, 1883, he would not have gone out of his way to use another method of manufacture and produce a different crimper in August, 1883. In other words, his position is that, having made the Mills & Hershey crimper in 1876, etc., he had a right to make it in spite of the Mills & Hershey patent, which was issued in 1879.

That he did not use this process (see his 1884 patent) at least publicly, in August, 1883, proves thot he either did not need it, or thought he had no right to use it. That he secretly (compare his statement of how he made his August, 1883, crimpers, middle of page 51 of Record, with his patent applied for October 17, 1883, in which no cementing is mentioned) used it shows that he thought he had no right to use it publicly, and that he was required to use it is shown by his statement (page 51 of Record) that the process "consists *essentially* of passing the paper strips through a bath of dextrine." These facts conclusively show that in producing his August, 1883, crimper he proposed to make a cheaper crimper compared with his own prior crimper, but a dearer crimper compared with the Mills & Hershey. His cheapening was subsequent and in competition with the Mills & Hershey, by boldly adopting the cement, dispensing with the end clips, and using a cheaper wire core. Therefore, his "object" in August, 1883, was not to produce this cheap crimper, upon which this suit is based. Now, had he intended, in August, 1883, to produce a cheap crimper, and had he had the knowledge that he had the right to do so, would he not have used a simple strip of soft metal, braided it with a covering of cotton, as he did in 1876, but cemented to the core directly by the bare metal process, and dispensed with his end clips? He would then have had a capital crimper, precisely like the Mills & Hershey, and as cheap as it was possible to make such an article, as he was not restricted to any price or quality of material in core strip, covering, or cement. It was the very perfection of cheapness, and required no several weeks of experiment and study (page 51), as his paper strips did. Ah, that experiment and study! Was it not to get away from this cheap crimper, and to get away from the Mills & Hershey crimper? Why did he abandon this Mills & Hershey crimper in 1880, when complainants were making it a splendid success, if his crimper was in reality the Mills & Hershey crimper?

He says (page 50) that in 1876 he made and sold large quantities. * * * He continued it through 1877, 1878 and 1879 ; he stopped his machines in 1879, and then had quite a stock on hand, and these were finished and sold in 1880 ; he did not supply the jobbing trade generally after the fall of 1879 ; he stopped manufacturing the crimpers simply because his pendulum business had in 1879 acquired such proportions that he found it did not pay him to look after the crimper business. And yet he says that in the spring of 1881 he *closed his business in Bristol*, or was practically compelled to fail in business.

At all events Blakesley abandoned the manufacture of hair crimpers in 1879 because it did not pay, and the abandonment continued until August, 1883, an interval of between three and four years, when he again turned his attention to hair crimpers with a view of resuming the same, as he says. The Mills & Hershey crimper was first manufactured in the spring of 1877 (page 14 of Record), and by the fall of 1879 had become a considerable business, rapidly growing ; and by the fall of 1883, when Blakesley again turned his attention to it, it had pretty nearly reached the stage described by the witness Hershey, page 13 of Record, in which enough of these hair crimpers had been sold to give every female in the United States a full supply. So that in fact, whatever the crimper was which Blakesley made, it was of such character that the manufacture declined from the year 1876 (Blakesley says, Record, page 50, " I made the most crimpers during the last half of the year 1876, and the first half of the year 1877 ") down to the " fall of 1879," when he abandoned it entirely. During this same period complainants' crimper had been growing into popularity and in extent of sales, and during the years 1880, 1881, 1882, and 1883 had become an article of almost universal use, and *just then* Blakesley turned his attention again to crimpers. It was a good time for him to have done so. The market which he had failed to create and which he abandoned, to carry on the pendulum business alone in 1879, and then abandoned the pendulum business itself in 1881 (Record, page 50), without taking up the discarded crimpers, showing that the trade was not worth looking after, had now, thanks to complainants' invention, become valuable, and he felt that here was a chance to "cut in," which he did. As he describes his manufacture, page 51 of the Record, we see that he took a flat strip of soft metal, and two strips of paper. These paper-strips he passed through a bath of dextrine solution, and then brought them together with the flat metal strip between. Of course these paper strips were loaded with dextrine solution on both sides, and when they were drawn together by the braid of the braiding machine, up through which they at once passed to be braided, the inner faces and the metal strip were all three cemented together, while the outer faces of the paper strips were cemented to the braided covering. Whether the core in such a crimper be considered to be the joint paper and metal, the soft metal being the essential element, or whether the metal alone be considered the core and the paper strips and braid together the covering does not matter. The whole was cemented together of necessity, and the covering was, of course, cemented to the core, the paper strips being in any case analogous to the cementing material, had the same been applied in flexible strips instead of a liquid, as is often done in the arts. There can be no question as to this being an infringement of the Mills & Hershey patent. With such crimpers, of course, end clips were not required, any more than in the Mills & Hershey crimpers, where they were never used.

The Mills & Hershey patent had been issued for more than four years, when Blakesley applied for his patent, which application he refers to, page 51 of the Record, as follows: "October 17, 1883, I applied for a patent for my improved hair crimper, *i. e.*, a crimper having a non-elastic core enclosed in an envelope of paper, which envelope is provided with a braided covering, the *same being cemented* to the paper envelope. * * * The patent will issue, having date as of April 29, 1884." Let us now look at this patent, which is an exhibit in the case. The specification, lines 10-31, page 1, opens with a description and criticism of crimpers as they "have heretofore been made," and is as follows:

"My invention relates to an improvement in hair crimpers. *Heretofore* hair crimpers have been made by braiding a long strip of *thinly rolled lead* and cutting the braided strips into suitable lengths to form the crimpers. The braid is *secured to the metal strip by some adhesive* substance, and is left with *raw edges at its opposite ends.* Crimpers thus formed are quite expensive in manufacture, as the body of the crimper is composed of lead, which is a comparatively expensive metal." [Note: Lead strips were then worth five cents a pound and brass strips thirty-five cents per pound.] "*Again*, when the braid is applied directly to the metal, the braid is liable to become cut and severed by the edges of the metal strip, due to the continuous bending of the latter. *Further*, the ends of the braid being unprotected, are liable to unravel *and impair the value* and appearance of the latter. Crimpers have also been made by covering a non-elastic wire or strip with hemp and applying to the latter a covering of leather or fabric. This form of crimper is evidently expensive in manufacture."

Let us now see what the above statement means. Blakesley has sworn, and his witnesses have sworn, that Blakesley's end clips were applied to his crimpers solely and exclusively for ornament. See Blakesley page 51 of Record: "These clips had no function whatever, and were only used because they gave a finish to the crimper." Julius Wright, page 54: "These clips had no function whatever. They were simply for ornament." Mrs. Paul, page 58: "The tips were used for finish and ornament." Page 61: "Not being the inventor, I can't tell what all their purpose was; only what he told the hands that they were for ornament." Carrington, page 63: "The clips were not essential to the usefulness of the crimper." Page 65: "The clips were ornamental. If they became detached, *as was very easily the case*, the dextrine would prevent the unraveling." Bracken, page 66: "The clips were applied for ornament." Wright, page 74: "I used the clips in order to make them appear better in market. I considered that it gave them a more finished look." Blakesley, page 88: "I followed Wright's plan; * * * thought that it would be a very attractive feature, to make the goods have a nice appearance, * * * etc. The clips were not necessary to the usefulness of these crimpers made by the bare metal or the cotton-covered bath process." And yet this specification destroys all this fine spun nonsense by stating the truth that, according to his experience (not that of Mills & Hershey, however), the end clips prevent the unraveling of the ends and the impairment of value of the crimpers. And at lines 75–80 of page 1 of his specification, Blakesley repeats this statement as applied to his own crimper (in the manufacture of which he stated, page 57, that the use of his cement was an essential feature, which he repeated in answer to XQ. 66, page 91, of Record), as follows: "Besides materially adding to the appearance of the crimper, also prevents the braiding from slipping off or unwinding which would expose the paper body and render it unfit for use." Also line 50, page 1, of specification, he says, "The metal clips at the end serve to protect the paper and braided cover." There is such a thing as standing up so straight as to lean over backwards. In two of his claims, moreover, the end clips form an operative element in the construction and combination.

But he says that "heretofore hair crimpers have been made by braiding a long strip of thinly rolled lead," and that "the braid is secured to the metal strip by some *adhesive substance.*" There is no reason to believe that any hair crimpers made of thinly rolled strips *of lead*, with a braided covering secured to the metal strip, were known prior to the Mills & Hershey crimper, and Blakesley himself states that he sent his attorney the goods, his own and the lead crimper (Record, page 93). So we are confronted with the extraordinary fact that, in describing the crimper heretofore made, he does not include the one which he afterwards so strenuously insisted he had made himself long before, *i. e.*, in 1876, precisely like the Mills & Hershey crimper, except in the use of a brass strip instead of a lead one. While he may have known *something* about the

Mills & Hershey crimper, he *must* have known all about his own. He also criticises such hair crimpers severely, but in his whole testimony in the case he strenuously insists that like criticism was not applicable to his own make in 1876; as for them *they* were perfect. But it will be seen, and this is most important, that while Blakesley states in his affidavit against motion for a preliminary injunction (page 51, Record), and also in his testimony (page 91), that the use of cement for joining the strips of paper, metal strips and braided covering together is essential in the production of the finished crimper, yet this is totally ignored in the patent itself. There is not one word or inference in the patent as to this essential element, so that, as the patent stands, goods made in accordance therewith would not be in any sense an infringement of the Mills & Hershey patent. He has, in other words, omitted, deliberately and with prior knowledge (see page 51 of Record), from the patent the cementing together of the paper strips, and the core, and the covering, an essential part of the production of his "improved" crimpers, hoping by this verbal omission that he would evade liability for infringement, while still carrying on this process (essential and in use in August, 1883, while his patent was applied for in October, 1883) in secret. Why? Upon what rational hypothesis can we account for such a performance, except by perceiving that he knew that he had no right to the cementing of the cover to the core strip along the length thereof, and that he dared not avow it. And here again goes the whole fabric which he endeavored to build after suit had been brought and his evasion and infringement had been discovered. Had he continued to use his end clips and kept his cementing secret, years might have elapsed and his secret never become known, but in seeking for orders from customers of the Mills & Hershey crimper, in New York (see Record, page 52, Blakesley's affidavit), he agreed to leave off his end clips and so cheapen his crimpers. This suggestion to the complainants by Mr. Griggs, to whom Blakesley made the proposal, at once revealed the fact of continuous cementing, an investigation was made, and the pending suit resulted. And as Blakesley, in answer to Qs. 52, 53, 54 and 55, page 90, of the Record, after examining a package of complainants' (Mills & Hershey) crimpers, replied that he had been for nine years acquainted with a hair crimper essentially like complainants' crimper; that he had considered his crimper made in 1876 identical with that described in the first claim of the Mills & Hershey patent; that he had invented it; and that his invention in 1876 was identical with the invention disclosed in the Mills & Hershey patent. *Of course*, if Blakesley had done what he then claimed to have done, he would have so stated in his patent, and it not only would have been his own protection, but the absence of description of such an essential part of his invention would have impaired if not destroyed the value of his patent. No proof can be stronger than such proof, for he had every inducement, except the fear of consequences, to tell the truth, and none to conceal his method of manufacture, and in so doing hide the infringing element in his finished product. He says, page 93, that he did not himself draw the specification, but in answer to XQ. 87, stated that he supposed that he had explained to his attorney the nature of the points of his invention and the comparative advantages of his crimper before the application for a patent was made. He pursued the usual course, and the patent as issued was, of course, for the alleged invention as described to the attorney.

There is one other point about this patent which will show further the keenness and sophistication of the witness. Page 2 of the specification, lines 10-24, he described a modification, consisting of a short length of thick paper laid alongside the core strip, on each side and beneath the strips of paper, in the middle of the crimper, and the whole braided over. This is to obtain added bulk at the middle, and to keep these short pieces of paper from slipping along under the braided covering; he secures them "by some suitable adhesive material," but the adhesive material is so applied, lines 16 and 17, that the short paper strips are united specifically to the paper, and not to the metal core strip. He is thus particular to prevent the inference that in any case he cements the core to the covering; and in his description of his patent (page 51 of Record), he adheres to the specific description (ignoring his process of manufacture), stating that it was a matter of calculation and not of chance, "a crimper having a non-elastic core enclosed in an envelope of paper, which envelope is provided with a braided covering, *the same* being cemented to *the paper envelope.* He seeks to follow the analogy of his double covered crimper in which the two coverings were cemented together, and, in doing so, studiously disclaims that the inner covering (the paper envelope, as he calls it) was cemented to the metal core strip, ignoring the fact that the two strips of paper passing through the dextrine bath and applied on opposite sides of the metal core strips, each cements whatever is adjacent on either side.

It now remains to show that, by the history of the case as presented by the defendants themselves, the use of the bare metal bath process was an impossibility, and of course the product as well. In 1875, or early in 1876, the daubed process of Wright was turned over to Blakesley, who continued it through the spring of 1876. Wright (page 49 of Record) worked for Blakesley on and off up to the following May (1876). Some time early in June he (Wright) went to St. Paul, Minn., and returned home in about ten days. When he returned, he went to work for other parties in the shop where Blakesley was carrying on his business, and frequently came into his rooms, where he *watched* the development of the garter and crimper business. That is what Blakesley says. Wright says (page 55) that he went to St. Paul early in June, 1876, and was gone about ten days. Carrington says (page 56) that when he returned to work for Mr. Blakesley, *in the spring of 1876*, the daubing process was still in use, until the early summer of 1876, when Blakesley used a pan of dextrine.

The case had proceeded with reference to the daubed process and double covered crimper as described, page 49, 50 of Record, until the adjournment in the midst of Wright's examination in the evening of September 24, 1884. Up to this time not a word had been broached by any of the defendants' witnesses looking to the manufacture by Blakesley of a crimper by the bare metal bath or Mills & Hershey process. That evening a consultation or council of war was held between Wright, at that time the witness under examination, Blakesley, the manufacturer, and Seymour, defendant's counsel. See page 82, answers to R-DQs. 93, 94 and 95. As a result the whole course of the defense was changed, and henceforward the double covered crimper and the daubed metal process were discarded, and the entire stress was laid upon the bare metal bath process. So much was this the case that in defendants' affidavits filed on motion to reopen, pages 97 to 103, all the affiants, seven in number, mention only the bare metal bath process, totally ignoring both the daubed and the double covered crimpers.

Wright fired the first gun in answer to Q. 22, page 75, "How was this braiding done as you saw it?" Answer, "The first that I saw of it was in the spring of '76. I was up at the factory to settle some little business affair between us. I stepped into the braiding room and saw that he had taken a different method from what I had used. He then had a strip of this metal on a reel placed beneath the machine, and above this reel, near to the braider, was a dish of dextrine that he was passing the metal up through under a roll, or rod, to immerse it in the dextrine. It then went up through and was covered, braided with silk." Q. 23. "Was the metal covered or not when it entered the pan?" Answer, "It was not covered."

This ends Wright's testimony as to this point, except that, page 83, he stated that (answers to R-DQs. 105, 106 and 107), his business, when he visited Blakesley's shop, and saw the bare metal bath process, involved the receiving of money from Blakesley; that he did receive it at that time, and that "it was somewhere in the month of May."

He says that he saw this material going up on the reel, by the bare metal bath process, and in answer to Q. 24, that "it looked wet and discolored." We have Blakesley's affidavit, (page 103 of Record, line 5), that to save this stained strip he hit upon the device of recovering it with another coat of braiding, so that the product on the reel as it was, could certainly not have been an economical nor a merchantable product: doubtless, if it ever existed, it was an experimental or a waste product, as such things occur in every factory. But what became of this wet and discolored material? Does Wright say that it was ever made into crimpers? By no means. In answer to XQ. 63, "Did you ever see any crimpers made, or after they were made by Mr. Blakesley from the uncovered metal core, run through a pan of dextrine and braided over as described by you?" A. "I don't recollect of seeing any only as they were being braided." And these were wet and discolored. But he did see crimpers soon afterwards, but not this kind. He was absent ten days on his trip to St. Paul, and on his return, in June, 1876, page 76, Blakesley "showed me (him) some that were double covered, braided with double covering." He did not know how they were made, only what Blakesley told him (answer to Q. 30), so that he did not see these made. That is, he saw the bare metal bath process as applied on the reel, BUT NO CRIMPERS, and subsequently the double covered crimpers but not the process of manufacture. He saw the bare metal bath process in use "somewhere in the month of May" (page 83), and the double covered crimpers in the month of June. None of the witnesses state that Blakesley returned to the alleged bare metal bath process of manufacture after he had abandoned it, and Blakesley states (page 86–7), that he made from 500 to 800 boxes of one dozen each, (see bottom of page 55, Record, and page 49, line 16, and page 50, line 28), by this process and the crimpers he made afterwards he made with a double covering. This fixes the greatest possible limit of time for the alleged bare metal bath process, from some time in May to some time in June, 1876, out of a total manufacture of crimpers from some time in 1875 to the fall of 1879, a period of four years. Carrington, in his affidavit, page 56 of Record, says that * * in the spring of 1876 he returned to work for Blakesley, and was put to braiding garters and crimpers, he having acquired the business from Wright. "About this time we began to put a double covering on the crimpers. This consisted of an inner covering of cotton and an outer covering of silk, and involved two braiding operations, the long strips being passed through the cotton braider first and then through the silk braider. When I returned to the shop in the spring, and by this I mean the opening of 1876, a brush was still used in gumming the crimper strips before cutting them up. I continued to gum the strips as I had leisure, for after the braiders were started up they did not require constant attention. Some time in the early summer of this year, 1876, Mr. Blakesley placed a pan of dextrine beneath the braiders and passed the core strip through the gum on its way from the cotton braider to the silk braider. The covering of cotton was already on the strips when it entered the gum."

We must bear carefully in mind the sequence of events above narrated, for it is very important that when Carrington returned to work in the spring the daubed process was still used; that about that time the double covering was introduced (nothing said of the dextrine bath as yet). In the early summer the bath process with the double cover was used, applied outside the cotton covering, and that Carrington continued to gum the braided strips at leisure intervals while running the braiders. Page 63, of Record, Carrington again states that he ran the braiders. In Wright's affidavit, page 55, of Record, "In the spring of 1876 I parted with my crimper business to Mr. Blakesley, for whom I worked off and on during this spring. *During this time* Mr. Blakesley made arrangements to provide the crimper with a double covering; this consisted of an inner covering of cotton and an outer covering of silk. *Early in June* of this same year I went to St. Paul, Minn., and was gone about ten days." Now, observe that Wright, just like Carrington, puts the introduction of the double covered crimper in the *spring* of 1876. But neither refers to any dextrine bath at this time in connection with this double covered crimper. We will see the importance of this very soon. While Wright says Blakesley made arrangements in the *spring* of 1876 to provide a double cover, which he describes, and must have seen the arrangements made, it is not till his trip to St. Paul, in June, that he mentions the dextrine bath, and says that "about this time," but whether before or after his trip to St. Paul he does not state. "I (he) found that Mr. Blakesley was passing the core strips through a bath of dextrine *after* it had received the first, or cotton, covering."

If these affidavits establish anything, they show that Blakesley introduced his double covering in the spring of 1876, and introduced his dextrine bath process, and then only for use in the manufacture of the double covered crimpers, in the early summer, or June, of that year, and subsequently thereto.

Blakesley's affidavit clinches this fact beyond peradventure, and shows that the dextrine bath process was the result of a breakdown of the daubing process as applied to double covered crimpers, so that the introduction of the dextrine bath must have been subsequent to the manufacture of the double covered crimpers. But it is already on record that after Blakesley introduced the manufacture of the double covered process, he did not return to the single covered crimper (see Blakesley's statement, page 87 of the Record, answer to Q. 19, and his affidavit, page 103 of the Record). Let us now turn to Blakesley's affidavit against preliminary injunction, made in April, 1884, and which was the third of a series of sequences which must have fixed in his mind the facts relating to his prior manufacture of hair crimpers. The first was the "several weeks of experiment and study" which were requisite for the bringing out his 1883 crimper, and which he narrates at the top of page 51 of Record; the second was his application for letters patent, in which he reviews the prior state of the art, and which was filed October 17, 1883, and the last was this affidavit, in which, by showing what he had done before the issue of the Mills & Hershey patent, he hoped to defeat the same. At the time he made this affidavit, which was before the case had proceeded to taking complainant's testimony, and the difficulty of his position had become manifest, he undoubtedly described, if he ever did, the sequence of events as they actually occurred, and this sequence, as narrated, is natural and reasonable, and is in accordance with the sequence set up in the affidavits of Wright and

Carrington. Page 49, of Record, Blakesley says: "In the spring of 1876 I began applying a double covering to the crimpers. This consisted of an outer covering of silk and an inner covering of cotton, and involved two braiding operations. * * With this double covering I found difficulty in gumming the long core strips; the increased bulk of the braided covering required more mucilage, and hence more time to apply it. It also required more time for drying. *This led me to look for* some other way of applying the gum." Now, this fixes the fact as stated by both Carrington and Wright (page 55 and 56 of Record), that he introduced the double covered process in the spring of 1876, and that at that time the daubed process of applying the dextrine at intervals was still in use, and that in the early summer, or some time in June, 1876, he introduced the dextrine bath. It shows that Blakesley devised the dextrine bath to meet an unexpected difficulty in the manufacture of his double covered crimpers, which was then under way, and that it was not at his hand, but that he had to "look for some other way," and that he then "devised" the dextrine bath process. He further says, page 51 of Record, "*some time in the early summer of this year I devised the plan of running the core strip through a bath of dextrine after it had received the covering of cotton.*" But this was not a success immediately, for he says, page 51 of Record, "I found, after putting this plan of putting the core strip through a bath of dextrine on its way from the cotton to the silk braider into operation, that the cotton covering took up too much mucilage, and especially late in the day, when the same had thickened. *To avoid this* I fixed up two rollers, through which the core strip was passed before entering the silk braider. These rollers stripped off the excess or surplus gum." Of course, this history of the introduction of the bath to meet a difficulty in gumming the double covered crimper by the former method, *utterly precludes the use of a dextrine bath process with bare metal strips, and a single covering prior to the introduction of the double covered crimper.*

To meet a remark, in the opinion of Judge Wallace (page 95 of Record), that "no explanation has been given of the failure to state the facts," and that "the omission to state what was so important, if true, was significant," Blakesley in his affidavit on motion to reopen the case (page 102 of the Record), frankly says: "When I made this affidavit I was not able to swear positively that in 1876 I made hair crimpers by passing a bare crimper strip through a bath of dextrine and then through a braider, applying a covering. Therefore, *I made no mention* of such process in my affidavit. *Subsequently*, however, I became assured that I had, in fact, employed such process for a time in 1876, and therefore testified to it when called as a witness in the case." But this will not do—he not only did not mention it, but mentioned a sequence and the causes leading up from one step of the manufacture to another, in such a way as to preclude the manufacture by the bare metal bath. He might have forgotten a fact, but never an entire sequence. If a man were arrested for malicious trespass, cutting down a hickory sapling for instance, in a neighbor's woods, and alleged in defense that it was not done as a trespass, but that, while passing through the woods, he cut the sapling down to make an axletree for his wagon, which had at that time broken down, and used the sapling for that purpose, correcting the defects of the improvised axletree by other devices, such as hewing the bark off at one side to fit to the wagon bed where it projected, etc., he cannot afterwards be believed if he swears that he did not cut down the sapling for this purpose at all; that he owned no wagon at that time; that his wagon did not break down; that he did not hew the sapling to fit his wagon bed; that he cut the sapling down for a different purpose, and several weeks before the time when he had previously sworn that he cut it down, and stated in reply as to why he did not state these facts correctly, that his son had suggested one day long before that the sapling would make a good flagstaff for the fourth of July, and he had cut it down and that he and his son had dragged it home for that patriotic purpose away back in the early spring.

The sequence set up in Blakesley's affidavit against the motion for a preliminary injunction cannot be overthrown, and when fortified by Carrington's affidavit against said motion for a preliminary injunction, which narrates the same sequence, and when Carrington was himself running the braiders and daubing the crimpers, and both corroborated by Wright's affidavit against preliminary injunction, make an impregnable wall which can never be overthrown by defendants, in order to build on the ruins a new and utterly incompatible structure. The bare metal bath process was never employed by Blakesley in 1876.

We now come to the affidavits filed on motion to reopen the case. See pages 97–108 of the Record, and which motion was properly dismissed by the Court. These affidavits are thirteen in number, made by eight affiants, and were prepared, and the affidavits (except that of Seymour himself) made before George D. Seymour, at that time defendants' counsel, acting as a Notary Public.

The affiants are as follows : (1) Fred. B. Mitchell, 2, affidavits, pages 97 and 98, Record ; (2) George Lewis, 2, pages 98 and 99, Record ; (3) Frank A. Hubbell, 2, pages 99 and 100, Record ; (4) Timothy B. Robinson, 1, page 100, Record ; (5) Mrs. Geo. A. Gowdy, 2, page 101, Record ; (6) Rufus Sikes, 1, page 102, Record ; (7) Gilbert H. Blakesley, 1, pages 102 and 103, Record ; (8) George D. Seymour, 2, pages 103 and 108, Record.

With the exception of the last two, which were made by defendants' counsel, all these affidavits refer only to the bare metal bath process, and Blakesley's is an attempted explanation of why he could not remember this process before he testified ; this affidavit we have already disposed of ; it is incredible, and what he alleges to be facts were impossible. But the other six affiants all recollect the braided covering cemented directly to the metal core strip, and in several instances allege that they had to pick and pull the strands off in order to detach the fabric from the metal. No crimpers or exhibits of any kind were produced by these affiants or in connection with their affidavits. Comparing this with Blakesley's statement in his affidavit against the motion for a preliminary injunction, that it was so difficult as to be almost impossible to secure an absorbent to a non-absorbent material (such as he used) by an *adhesion*, it can readily be seen that these witnesses must have had exceedingly vivid imaginations. It is also to be noted that while the alleged bare metal bath process of Blakesley's was never claimed to have been in existence more than a month or six weeks, "from some time in May to some time in June, 1876;" that Blakesley's manufacture of crimpers extended from 1875 to the latter part of 1879, a period of four years. Blakesley himself, page 87, answer to Q. 18, fixes the number at "from 500 to 800 boxes, 50 gross or more," and Wright, bottom of page 54, states that each box held one dozen crimpers. Five great gross of these hence would be 60 gross, or 720 dozens, and this is the limit of the manufacture of these goods, as claimed by Blakesley during the whole course of his four years' manufacture.

Hershey, in his testimony, puts the price of such goods as made by complainants at $2.40 per great gross (page 15 of the Record), and at page 117, Record, the jobbing price is given at $2.16 per great gross, and page 118 of Record the profit is placed at $1 per great gross, which is the basis of computation for damages. It will be seen that at this rate Blakesley's entire profit at complainants' prices was $5 or less. If he charged more, so much the worse for the public, and so much the better for the public under the manufacture by complainants. Now, this is not a large profit for a manufacturing concern, nor could he have been running even so long as four to six weeks to make this quantity, which, even for two weeks' running, would only have netted the factory about $2.50 per week. The preposterous character of these affidavits can be seen by the vivid recollection on the part of all these of this intangible bare metal bath process as used by Blakesley. But we are not left in the dark. Geo. D. Seymour, who was at the time defendants' counsel, made an affidavit, which appears in the Record, pages 105 to 108, and his revelations are of such a character as would lead one to believe, in charity, that these affidavits are in fact the result of what is scientifically known as hypnotism, in which the mind of the operator is stamped upon the mentality of the subject so that he can only see, hear, feel and believe what the operator himself implants.

He first says (pages 105 and 106) that he and Blakesley scoured the country and interviewed "not less than twenty-five and probably a greater number of persons," undoubtedly those mentioned in the answer, but without avail, as they were not called upon to make affidavits.

He had as many as three separate interviews with Mrs. Gowdy, and Blakesley had with her as many more; that she was carefully questioned, but that "notwithstanding these several and prolonged interviews and the earnest endeavor," "it was not found that she had *any knowledge* of the matter now set forth in her affidavit."

Her statement came out finally as an "entire surprise to Mr. Blakesley, who had before *failed to find out that she had any knowledge of the bare metal bath* process."

So of Fred. B. Mitchell, with whom Blakesley had conversation prior to the trial of this cause, and subsequently Seymour had at least two similar conversations; but, notwithstanding, "he was asked such questions, etc., *nothing* of importance was drawn out."

Timothy B. Robinson (page 107) was "many times questioned about his knowledge of the prior public use and sale," but "without eliciting anything from him save the fact that he knew that crimpers were made in 1876." Of Frank D. Hubbell's affidavit it is said "such testimony not having been discovered in careful and extended research, and the same with regard to the affidavit of Rufus Sikes."

Now such a process of suction is almost without a parallel. The persistent hammering of deeply desired information into a patient and friendly listener will often evoke such unconscious cerebration as will reflect the desired information. Such are well-known unconscious plagiarisms of readers, writers, speakers, artists and musicians. Strains heard again and again become deeply impressed upon the mind, and are finally recalled as original impressions. Such manipulation of witnesses, after repeated unsuccessful efforts avowed in Court, would defeat any case upon which their testimony was based. "Peradventure, a man will die for his friend." But this belongs to the domain of fancy and not of fact, and so Judge Wallace decided, for if he had believed the affidavits of these doctored witnesses he could not have denied the motion to reopen. This concludes the question of anticipation by Blakesley.

PATENTABLE NOVELTY.

The only remaining question is that of patentable novelty. We have seen that the manufacture of Blakesley's daubed process crimpers was merged in that of his double covered crimpers, and that the manufacture of these gradually decreased from the year 1875 until in 1879 it was finally abandoned, and in 1880 the goods ceased to be sold at all. During this period complainants' crimper had been patented and was making its way. Up to July, 1884, the witness Hershey testified that complainants had made and sold FROM FIFTY THOUSAND TO SIXTY THOUSAND GREAT GROSS, a product which sold at the wholesale price of (page 15) $2.40 per great gross, for nearly $150,000, and at retail at about double that price. Since then the sales have been equally great. Heysinger testified (page 114 of Record) in October, 1888, that complainants consumed in the manufacture of these crimpers in one year, more than 150,000 pounds of lead, and that the sales "have been as many as 20,000 great gross, of 1728 crimpers each, in one year." Also, page 117, that complainants paid for lead from July 1, 1883, to July 1, 1885, $10,066.80, and for thread, $6,003.30, for boxes $2,996.50, for dextrine $300, and for labor $5.719.12. During the same period they produced 29,196 great gross of the crimpers. This will show the magnitude and importance of the business, and a Court should be slow to invalidate a patent which has produced, and is still producing, such results, cause an abandonment to the public of the fruits of long years of labor and invention, in favor of such a manufacture, for instance, as was carried on through four years of decline by Blakesley, from 1875 to 1879, when the business was finally abandoned, and would doubtless have so remained to this day, had it not been reawakened by the success of complainants' patented crimper, the manufacture of which he only dared approach then by subterfuge and in secret.

AS TO HOOPSKIRTS.

It has been sought by defendants to find an analogy between the Mills & Hershey crimper and covered hoopskirt wires; but not only are these made of spring steel but they are covered, necessarily, from the outside after braiding, with a waterproof coating designed to prevent wetting and soiling of the material of which they are made. The wires thus covered and coated outside are afterwards clamped together in closed circles, etc., at their ends by metal clasps and are not adapted to be cut apart. One of complainants' crimpers, if of full length for a woman, can be cut in two with a pair of scissors, as described in the specification, and it would become at once two perfect crimpers for a child, all complete and ready for use. But can a hoopskirt for a woman be cut in two and become two hoopskirts for a child? Of course, hoopskirt wires could be bought, but they are not bought in the form of hoopskirts, ready for use, just as the crimpers are. The coating in hoopskirts is for a different purpose, that of waterproofing, and is necessarily *outside* the braid and is necessarily composed of a different kind of material, for not only is dextrine cement a soluble and adhesive substance, unsuitable for hoopskirts, but to make the hoopskirt waterproof, its outer surface must be plastered over, while in complainants' crimper the cement is necessarily applied *from within*, and the outer surface of the fabric must be left soft, pliable and unsaturated, as described in the specification of the Mills & Hershey patent to make a suitable bed for, and prevent breaking, the hairs which are to be tightly drawn around and in contact therewith. Blakesley himself, in his patent of April 29, 1884, specification, page 1, lines 21 to 24, says, " When the braid is applied directly to the metal, the braid is liable to become cut and severed by the edges of the metal strip, due to the continuous bending of the latter." If this is true of woven braid, how much greater must be the danger that delicate hairs, when tightly wound around it, will also become "cut and severed," unless a soft and pliable outer surface is maintained? If it were not for this difficulty, bare lead might be used. The *hair* is the valuable element to be protected in the use of the crimper, while in the use of hoopskirts, *the hoopskirting itself* is the material to be protected.

THE FROST PATENT.

The patent of W. E. Frost, No. 48,765, dated July 11, 1865, has been set up as an anticipation. The process therein described is much more nearly like Blakesley's double covered process than like complainants'. It is for "sizing and finishing *covered* skirt wires." *Covered* skirt wires, it should be observed, as the skirt wires are covered before this invention is applied. The bare wire is first braided dry; it is then passed through a solution of starch or the like, and thence in contact with ironers or polishing surfaces. That is, the dry-braided covered wire is put through a bath, substantially as Blakesley did in making his double covered crimper *after* it had received its first braided covering. The bath in this case is of starch, or such sizing obviously as would take a polish. For this purpose it must lie on the outside of the covering; it is then polished so as to present a smooth, polished, starched, and necessarily hard and resistent outer surface. The Court below in examining defendants' double covered crimpers made in this way with a dextrine solution found, page 95 of Record, that "the exhibits of his (Blakesley's) crimpers produced show that there is no appreciable adhesion between the covering and the core;" and much less must this have been the case when a starched surface which could be ironed and polished was the one used. The claim of the Frost patent is as follows: "Passing the wire through the starch or size, and thence directly in contact with ironers or polishing surfaces, substantially as described, for the purpose set forth; whence it may be passed over rolls and heaters previous to its being used." The title of the patent is "Sizing and Finishing *Covered* Skirt Wire." The mechanism is substantially similar to that of Blakesley's, as shown in his sketch mentioned in Carrington's testimony, page 72 of the Record.

STEEL CORSET AND DRESS STAYS.

So likewise of steel corset and dress stays. These, if afterwards cut into shorter lengths, would not be fit to use again, as the sharp ends and corners of the steel would protrude like knives and injure the clothing as well as the person of the wearer. They are consequently sheathed or tipped at their ends with protecting clips like Blakesley's crimpers, and, if cut apart, there would be no protecting clips left to cover the ragged ends. Hence, they are always, when covered with braid, provided with protecting end clips. Cement, however, is not an element in their manufacture, would be of no use, and might, in fact, impair their free bending qualities, and is not used.

WHALEBONES.

Whalebones can, however, be cut into lengths, but these are simple, uncovered sticks, like a crimper core and which it is not desirable to cover, as the sale value depends upon their smoothness, nakedness, slimness and elasticity. If covered steels could be used as a successful substitute, would the price of whalebones have advanced to $6 or $10 per pound, as it has done? Steel substitutes lack an essential quality of whalebone, and this gives the latter its great value. Who would question that such a substitute, perfect in all respects, would be a most valuable invention and one never, as yet, made? All these apparent analogies, moreover, are only apparent in the light of and after the fact has been accomplished. Resemblances are frequently found between accomplished results or means which were in no-wise apparent before. Since the Mills & Hershey crimper was introduced, many forms of covered wire have been manufactured for electric purposes, some novel, and others not. But this art, when the Mills & Hershey crimpers were first made (see Heysinger's testimony, page 114 of Record)—"the manufacture was begun in the spring of 1877"—was in its infancy and such covered wires were either uncemented, or massed with gutta-percha and wrapped with wires for submarine purposes. Insulation was the object to be accomplished, and so, while in hoopskirts the material within the covering was the part to be protected, in electric wires the escape of electricity was the thing to be prevented. The purpose and scope being so different, any resemblances must be considered accidental and non-essential, even if such resemblances actually existed prior to opportunity to compare together different classes of invention, essentially so diverse, by considering them side by side, after the inventions had been made and put into practical shape. Under such tests even the telephone, the electric telegraph and the steam engine would fail to disclose novelty. But such tests are not real; they are forced. Taking these three classes of invention: to recapitulate,—1. The Mills & Hershey crimper presents a soft covering of fibrous material continuously cemented on its under side only to its soft metal core, so that it could be cut apart at any time into shorter crimpers, and having the outer surface of the covering unsaturated and soft and pliable, so as not to break or injure the hair during its frequent flexions or bendings, these bendings being essential to the use of the device: 2. The hoopskirt wires required an outside waterproof covering to protect the hoopskirt from wetting or soiling from without. The cementing was not sought after, and the method used by Mills and Hershey was not a practical way of applying such waterproofing material even if it would cement, so as to cement the covering to the core, and such cementing would have been useless. The waterproofing covering was necessarily thick and plastic, and the outer surface was not only saturated but absolutely plastered or painted over to produce its proper effect. It was not intended that it should be cut into shorter lengths while in actual use. 3. Electric wires required an electrically insulating covering to prevent the escape of electricity, and for air lines, etc.; there was no cementing of cover to core, none needed and none used; the simple loose dry silk covering being the best possible insulating material. For submarine wires the covering was of tar, gutta-percha or the like imbedding a number of wires in the center, and the whole bound by spiral wires to prevent attack by marine animals and the like.

Any resemblances found were from one entire class of inventions to another entirely diverse; one was not predicated upon or necessarily evolved from the other; the results were different, the objects of one contradictory of those of the other, and the protection was for entirely different purposes and for entirely different things.

THE CEREDO PATENT.

As for the Ceredo patent, No. 107,596, of September 20, 1870, an exhibit in this case, it is almost precisely like the crimper shown in Blakesley's 1884 patent, Figs. 2 and 4, consisting of a core of metal and a stuffing of hemp, covered with a coating of fabric, with end clips, the crimper tapered toward the ends, swollen in the middle, and the covering uncemented to the core, no cement being used in any part of the construction. While it might serve as an anticipation of the Blakesley patent, it could not anticipate the Mills & Hershey patent, for, as already stated, a crimper made precisely in accordance with the Blakesley patent of 1884 itself, and without the cementing of the covering to the core, would not be an infringement of the Mills & Hershey patent. And so also of the Ceredo crimper. It may be good or bad, but it is a round-bodied curler, made without cement, the covering held by end clips. It is incapable of being cut into shorter lengths for use, as the covering is uncemented to the core, and by its enlarged and swollen center tapered towards the ends, it would be prevented from being drawn endwise out from the mass of hair twisted around the same, which is essential in a hair crimper, the ball of hair being disentangled with crimps, and not uncurled in the reverse direction as compared to the hair when applied thereto. To remove the Ceredo curler, the mass of hair would have to be again unrolled to the end of the strand, leaving an extended and dependent curl, but not a crisped and fluffy crimp, and this alone makes it a curler instead of a crimper. It is used, in fact, precisely like an ordinary iron. As related to the manufacture of Blakesley's double covered crimpers, which was the defense relied upon when it was introduced as an exhibit, it might have a bearing, perhaps, but in connection with Blakesley's subsequently set up defense, to wit, the bare metal bath process, it has no relevancy whatever. The Mills & Hershey patent itself refers to the "crimping papers formerly in use," in which bits of paper were rolled up with the hair, the twisted ends grotesquely projecting all over the heads of the wearers, somewhat in the manner used long ago by the Pacific Islanders for decorating their heads and the heads of their gods, on ceremonial occasions, and it was to displace these conspicuous and disfiguring devices that the Mills & Hershey crimper was invented, and by reason of which it found so extensive a sale. Complainants have never contended that they invented the art of curling or crimping the hair—their invention is for "certain improvements in the manufacture of hair crimpers" (see specification, page 1, lines 5 and 6).

POINTS OF LAW.

a. The testimony introduced to show prior public use by Blakesley in 1876 in making crimpers with the braided covering firmly cemented to the core throughout its entire length must, his Honor Judge Wallace ruled, be free from fair doubt in order to overcome the presumption of novelty arising from the grant of letters patent. This statement of law is absolutely free from error. Robinson on Patents, Vol. III., S. 1026, and authorities therein cited. Cantrell *vs.* Wallick, 117 U. S., 689. In that case the head note accurately states the point of law decided, and is quoted.

> The defendant in a suit for infringement of a patent for an invention, who sets up prior use and want of novelty as a defense, has the burden upon him to establish the facts set up beyond all reasonable doubt; and, in this case, the defendants have failed to show the alleged prior use even by preponderance thereof.

His Honor Judge Wallace has found as a fact that by reason of the affidavits filed against the motion for a preliminary injunction, the testimony is not free from doubt.

In the case at bar there is not even a *scintilla* of testimony offered to overcome the *prima facia* evidence of the presence of invention arising from the grant of appellee's patent, and the defense of want of invention is not set up in the answer, as should have been done, in order to notify the complainant that the patents set up at paragraph 19 of the answer, page 9 of the Record, and the evidence of the "daubed" or "double cover processes" of Blakesley, would be invoked at the hearing to show want of invention and not merely to narrow or anticipate the patent, and thus show non-infringement. Moreover, the patents above referred to were never offered in evidence, and consequently are not before the Court. It is true that under certain circumstances, judicial notice will be taken of facts which show want of invention and without any pleading. However, the circumstances of the present case are such that this course may not be pursued. Because not only is there a complete absence of testimony tending to indicate what these patents contain, but also because the patents themselves show such radical differences as preclude the conclusion of want of invention in the step set forth in complainant's patent; for example, the patent to Ceredo describes an article in which there is no cement and which, by

reason of its bulky center, may not be withdrawn from the hair so as to crimp the latter in contradistinction to curling it; the hoopskirt patents describe a wire covered with a textile covering, the latter being coated with starch or other adhesive material, so that the same would adhere to the hair which is always dampened when being crimped; and the so-called double cover and daubed processes of Blal ley result in the production of an article in which the cover is not cemented to the core, and a covering which is not cemented to the core is utterly useless in a crimper (see nineteenth finding of fact, pages 1–31, printed Record). For the foregoing reasons, it is contended that your Honors may not take judicial notice of the foregoing state of this art as in anywise mitigating against the *prima facia* evidence of invention arising from the grant of complainant's patent. In other words, it is contended that the state of this art needs to be proved by explanatory evidence and cannot, in the absence of such evidence, be taken judicial notice of for the purpose urged.

b. The presence or absence of invention is a question of fact to be ascertained from the evidence and affirmed or denied according to whether the evidence shows novel results or means, or not. Barbed Wire Patent, 143 U. S., 275; Topliff *vs.* Topliff, 145 U. S., 156; Krements *vs.* S. Cattle Co., 13 S. C. Rep., 719; Western Electric Co. *vs.* La Rue, 139 U. S., 601; and Gandy *vs.* Main Belting Co., 143 U. S., 587; and if this question is doubtful when so viewed, then the extent of use and sale is controlling evidence of its presence. Smith *vs.* Vulcanite Co., 95 U. S. 495.

c. Proof of loss of sales is requisite in order to warrant the finding of damages; loss will not be presumed. The fact that defendants were customers of complainants warrants, under the ruling in Covert *vs.* Sargent, 38 Fed., 237 (Wallace, J.), the finding of damages in this cause.

For the foregoing reasons it is respectfully submitted that the ruling of the Court below should be affirmed.

AUGUSTUS B. STOUGHTON,
Of Counsel.

150 U.S. 572

Office Supreme Court U. S.
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JAMES. H. McKENNEY.
CLERK.

6.

IN THE

SUPREME COURT

OF THE

UNITED STATES.

OCTOBER TERM, 1891.

JESSE P. FARLEY,

VS.

ORMAN W. KITTSON, JAMES J. HILL, AND
THE ST. PAUL, MINNEAPOLIS AND MANITOBA RAILWAY COMPANY.

PETITION OF

MAN W. KITTSON, et al.

LAW ASSOCIATION
OF
PHILADELPHIA

C. D. AND THOS. D. O'BRIEN,
Attorneys for Petitioners.

H. J. HORN,
of Counsel.

BROWN, TREACY & CO., PRINTERS, 140 EAST THIRD, ST. PAUL.

IN THE SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1891.

Jesse P. Farley,

vs.

Norman W. Kittson, James J. Hill, and the St. Paul, 2
Minneapolis & Manitoba Railway Company.

To the Honorable, the Judges of the Supreme Court of the United States:

The petition of Norman W. Kittson, a resident and
citizen of the State of Minnesota; Henry Kittson, a resident
and citizen of the State of Pennsylvania; Louis
Kittson, a resident and citizen of the State of Pennsylvania;
James E. Kittson, a resident and citizen of the 3
State of Minnesota; Anna N. Heath, (before marriage
Anna N. Kittson), a resident and citizen of the State of
of Minnesota; Elizabeth Baker, (before marriage Elizabeth
Kittson), a resident and citizen of the State of
Minnesota; Hercules L. Kittson, a resident and citizen
of the State of Minnesota; Louis Coyle Kittson, a resident
and citizen of the State of Minnesota; Louisa L.
Baker (before marriage Louisa L. Kittson), a resident
and citizen of the State of Minnesota; Marie E. Weaver
(before marriage Marie E. Kittson), a resident and citizen

4 of the State of Illinois; Alfred S. Kittson, a resident and citizen of the State of Minnesota, a minor, by his next friend, Norman W. Kittson, respectfully represent:

That the said petitioners are the only surviving children of Norman W. Kittson, late of Ramsey County in the State of Minnesota, deceased, and are named as legatees or devisees or beneficiaries in his last will and testament hereinafter referred to.

That Norman W. Kittson, the father of said petitioners, died during the year 1888, testate, and that his last will and testament was duly proved and allowed on the 25th
5 day of June, 1888, by the Probate Court of Ramsey County in the State of Minnesota,—of which said Ramsey County and State of Minnesota the said Norman W. Kittson was, at the time of his death a citizen and inhabitant, (a copy of which said last will and testament is hereto annexed and made part of this petition), and that the St. Paul Trust Company, a corporation created and existing under the laws of the State of Minnesota, and a citizen of said State of Minnesota, named in said last will and testament as the executor thereof, and also appointed therein the trustee of certain of said children
6 and a trustee with respect to certain other matters—as will thereby appear—was duly appointed by said Probate Court such executor, and letters testamentary thereon were duly issued to the said St. Paul Trust Co. during the said year 1888, on the 25th day of June.

That during the life-time of the said testator, Norman W. Kittson, Jesse P. Farley, then and still a citizen of the State of Iowa, commenced an action in the United States Circuit Court for the District of Minnesota, wherein said Jesse P. Farley was plaintiff and James J. Hill, a citizen of the State of Minnesota, the St. Paul, Minne-

apolis & Manitoba Railway Company, a corporation 7
created and existing under the laws of the State of Minnesota and a citizen of the said State of Minnesota, and the said Norman W. Kittson, were defendants.

That the said United States Circuit Court obtained jurisdiction of each of said defendants and of the subject matter of said action, and that the said Norman W. Kittson duly appeared and answered in said cause and made a full defense thereto, and that said cause was at issue, pending and undetermined in said Circuit Court of the United States at the date of the death of said
Norman W. Kittson, and that afterwards the said St. 8
Paul Trust Company, then executor of the said last will, was substituted as one of the defendants in said action in place of said Norman W. Kittson, deceased.

That said cause was thereafter tried, submitted and taken under advisement in said United States Circuit Court. That afterwards such proceedings were duly taken and had in said cause in said United States Circuit Court that on or about the 27th day of September, 1889, a decree of said Circuit Court of the United States was duly made and entered and appears of record therein,
whereby the said bill of complaint of said Jesse P. 9
Farley, plaintiff therein, was dismissed and a final judgment or decree thereon duly entered in said action against the said Jesse P. Farley, dismissing the said bill of complaint with costs.

That afterwards on the 27th day of September, 1889, an appeal was taken to the Supreme Court of the United States from said decree and judgment, which is now docketed and pending therein and is the cause or action stated in the caption of this petition.

That in said appeal the said Jesse P. Farley gave bond,

10 with sureties, in the sum of $2,000, conditioned according
to the statute in such case provided, (but not as or
being a supersedeas). That the said executor in the
meantime proceeded to administer the said estate and
has paid and discharged all the debts and claims against
the said deceased and the charges and expenses of administration,
and has also paid or advanced such of or
so much of the pecuniary legacies and bequests named
in the said will as not to affect substantially the said
claim of said Farley,—the account of said executor
setting forth said payments having been duly filed and
11 allowed in said Probate Court. That the value of the
estate of said testator not distributed in said administration
is several millions of dollars, (to all or nearly all of
which the said petitioners, by themselves or through the
said trustee, are entitled under and by the provisions of
said will), and that the claim of said Farley is very
large, exceeding more than a million of dollars in amount.
That the said Farley has never filed any claim in the
said Probate Court, and that except for the substitution of
the said executor as defendant in the said action in place
of said Norman W. Kittson, deceased, the said estate of
12 said deceased would have been long since fully closed
up and settled in said Probate Court and distributed
according to the ordinary course of administration under
the laws of the State of Minnesota in such cases.

That the said executor has been willing, with the permission of said Probate Court, to close up the said estate to the end that the same might be distributed according to the provisions of said will; and thereupon, on the 18th of January, 1890, filed its petition for that purpose, to the end that said estate might be closed up in said Probate Court and distribution made according

to the provisions of said will; and that said Probate 13
Court appointed a day of hearing of said petition and duly caused citations to be issued and served upon the said Jesse P. Farley and the said James J. Hill and the said the St. Paul, Minneapolis & Manitoba Railway Co. to show cause why the said petition should not be granted. That the said Jesse P. Farley did not appear thereto or oppose the same, and that no opposition was made thereto, except by the said James J. Hill and the said St. Paul, Minneapolis & Manitoba Railway Co.; and that said petition was denied by the said Probate Court and dismissed, and thereupon an appeal was taken 14
by said executor to the Supreme Court of the State of Minnesota, which affirmed the decision of the District Court.

That the said decisions in the said Probate, District and Supreme Courts dismissing said petition were based upon the ground that the said executor was a party defendant to the said action. That no one opposed said petition in the said proceedings or any of them, except the said James J. Hill and the said St. Paul, Minneapolis & Manitoba Railway Co.

That in and by the said will and testament it will ap- 15
pear, as is the fact, that the bulk of said estate in amount and value is devised or bequeathed to your said petitioners either directly or otherwise in certain instances to the St. Paul Trust Co. in trust for certain of the petitioners as therein provided.

That by the laws of the State of Minnesota, as your petitioners are advised and believe, the assets which your petitioners would receive or which may be held in trust for any of them under the provisions of said last will and testament, could, in case the same was delivered

16 over and distributed to them in accordance with the
provisions of said last will and testament, be subjected
within reasonable time to the claim of the said Jesse P.
Farley in case he ultimately prevailed in the said action.

That the said action and litigation of the said Jesse P.
Farley has, far beyond the ordinary time of settling up
estates and beyond the time that (as your petitioners are
advised and believe), is intended to be taken by the laws
of the State of Minnesota to settle up estates—suspended
the settling of said estate and the distribution thereof to
your petitioners, and has caused and will cause great
17 delay and loss to your petitioners unless the said execu-
tor can be relieved as a defendant in said action by the
substitution of your said petitioners therein; and that
by the substitution of your petitioners as defendants
in said action in place of said executor, the estate of said
Norman W. Kittson, deceased, can be closed up and
settled and distribution thereof made in accordance with
the said last will and testament, and that the said Jesse
P. Farley and other parties to said suit will be amply
and reasonably protected.

Wherefore, your petitioners pray that they may be
18 substituted as defendants in said action in place of the
said St. Paul Trust Company the executor of said will,
to the end that the estate of said testator may be settled
and distributed in said Probate Court, and for such other
relief as may be proper in the premises.

C. D. & Thos. D. O'Brien,
Att'ys for Petitioners,
St. Paul, Minn.

Henry J. Horn,
Counsel of Petitioners.

DISTRICT OF MINNESOTA, } ss. 19
County of Ramsey. }

James E. Kittson being duly sworn, doth despose and say that he is one of the petitioners above named and duly authorized to act for and on behalf of all said petitioners as well as himself. That he has read the foregoing petition and knows the contents thereof, and that the same is true, to the best of his knowledge, information and belief.

JAMES E. KITTSON.

Subscribed and sworn to before me this 15th day of 20 January, 1892.

C. D. O'BRIEN,
[Notarial Seal, Ramsey Co.] Notary Public,
Ramsey Co., Minn.

22

LAST WILL AND TESTAMENT

OF

NORMAN W. KITTSON, deceased.

THE ST. PAUL TRUST COMPANY, OF ST. PAUL, MINNESOTA,
Executor and Trustee.

KNOW ALL MEN BY THESE PRESENTS,

23 That I, Norman W. Kittson, of the City of St. Paul, County of Ramsey, and State of Minnesota, being of lawful age and of sound mind and memory, do make, publish and declare this my last will and testament in the manner following, that is to say:

FIRST SECTION (1).

I direct that all my just debts and funeral expenses be paid out of my undivided estate.

SECOND SECTION (2).

24 I hereby make, constitute and appoint the St. Paul Trust Company sole trustee and executor of this my last will and testament and testamentary guardian of my minor children hereinafter named, and of the minor children of my deceased son Alexander Kittson.

THIRD SECTION (3).

It is my will and I direct that no sale shall be made of or incumbrance placed upon, or division had of the lands about to be described, until after the youngest

of my children, hereinafter named, shall become of law- 25
ful age, nor until the year 1896, and that until the expiration of such time said lands shall remain a part of my undivided estate to be disposed of as hereinafter stated. The said lands are as follows: Midway Park, so-called, and a tract of land lying south of and on St. Anthony Avenue directly opposite said Midway Park, all in the said city of St. Paul, and which lands may be more particularly described as follows, to-wit: Lots twenty-eight (28), twenty-nine (29), thirty (30), thirty-one (31), thirty-two (32) and thirty-three (33) in Hall & Brown's
Addition to Hyde Park; five acres in the north-west 26
corner of the east half of the south-west quarter; the west one-half of the south-east quarter less the southerly thirty and one-half (30½) acres, and the east half of south-west quarter less the westerly seventeen and one-half (17½) acres in section thirty-four (34), township twenty-nine (29), range twenty-three (23). Provided, however, that I hereby direct and authorize my said executor or trustee to sell and convey that part of said lands lying south of said St. Anthony Avenue or any portion or portions of such parts whenever in the judg-
ment of my said executor or trustee it becomes necessary 27
for the purpose of paying taxes and assessments on said lands and the expenses of the administration of my estate or either, and the money legacies hereinafter named in the sixth, seventh, eighth, ninth, tenth and eleventh sections of this will and the provisions hereinafter made for the payment of such taxes, assessments and expenses of administration and legacies become insufficient therefor.

28

FOURTH SECTION (4).

The names of my children are Norman Kittson, Henry Kittson, Louis Kittson, James Edward Kittson, Anna Mary Kittson, Mary Elizabeth Kittson, Hercules L. Kittson, Louis Coyle Kittson, Louisa Lorette Kittson, Mary Esther Kittson and Alfred Kittson.

FIFTH SECTION (5).

I give, bequeath and devise unto my brother Robert H. Kittson and his daughter Juliette E. Kittson, both of
29 Sorel, Province of Quebec, Dominion of Canada, all claims or demands I may hold against the property of Margaret E. Kittson, the deceased wife of Robert H. Kittson, said property lying and being in the town or village of Sorel, aforesaid, and any other and all claims and demands I may have on any property in said town or village. Said claims or demands against said property to be held and owned by them collectively, share and share alike; but in case of the death of either of said parties, the survivor of said parties shall inherit the share of said deceased party; and in case of the death of
30 both of said parties, all of such claims or demands shall become a part of my undivided estate and disposed of as elsewhere stated in this will, hereby intending to give to my brother and his said daughter, or the survivor of them, a life usufruct of said claims or demands.

SIXTH SECTION (6).

I give and bequeath unto Georgiana Demaray, daughter of my deceased sister Ann Morrison, of Berthier, "En Haute," Dominion of Canada, the sum of five thousand ($5,000) dollars.

Seventh Section (7). 31

I give and bequeath unto Mary Morrison and Elizabeth W. Morrison, both daughters of my said sister Ann Morrison, and both of the City of Montreal, in the Province of Quebec, the sum of two thousand ($2,000) dollars each.

Eighth Section (8).

I give and bequeath unto Anna Paulet, daughter of my deceased sister, Julia Paulet, of Sorel, aforesaid, the sum of two thousand ($2,000) dollars. 32

Ninth Section (9).

I give and bequeath unto Alexandrina Kittson, the sum of two thousand ($2,000) dollars, said Alexandrina Kittson being the daughter of my deceased brother Alexander Kittson.

Tenth Section (10).

I give and bequeath unto The St. Paul Trust Company in trust for my three grandchildren (the children of my deceased son Alexander Kittson,) the sum of 33 thirty thousand ($30,000.00) dollars, that is to say, ten thousand dollars for each of said grandchildren, and the trust upon which the said bequest to the said trustee is so made is that said trustee shall place each of said shares of ten thousand dollars at interest until the majority of the child for whose use it is hereby bequeathed, and shall annually pay to the guardian of such child for the benefit of such child the interest thus received on his or her said ten thousand dollar share, and whenever and as often as any one of said children reaches

34 his or her majority, said trustee shall pay to said child
the ten thousand dollars belonging to such child;
provided, however, that if any one or more of said
children shall die before reaching majority the ten
thousand dollars hereby bequeathed for the use of the
child so dying and all unpaid interest thereon shall
become a part and parcel of my undivided estate.

Eleventh Section (11).

I give and bequeath unto the St. Paul Masonic Build-
35 ing Association, to purchase a lot in the aforesaid city
of St. Paul for Masonic purposes, or to erect or towards
the erection of a building for the like purpose in said
city, the sum of ten thousand dollars ($10,000.00).

Twelfth Section (12).

It is my will and I direct that as soon after my death
as may be my said executor shall sell at public or pri-
vate sale as my executor shall deem most advantageous
all my horses now, or which may at my death be, at
Midway Park, including stallions, brood mares, geldings,
36 colts, fillies and sucklings, and also all other articles of
personal property belonging to me which may be at
said Midway Park at my death, and the proceeds there-
of shall be retained by said executor or trustee and used
to meet, or to meet as far as they will, the expenses of
administration, the taxes on Midway Park and the land
opposite thereto on St. Anthony avenue hereinbefore
described, and the money legacies given in the Sixth,
Seventh, Eighth, Ninth, Tenth and Eleventh Sections of
this my will.

THIRTEENTH SECTION (13). 37

I give and devise in fee unto my son Norman Kittson all of the said pieces or parcels of land lying and being in said County of Ramsey, and described as follows, to-wit: The northermost half (½) of lots numbered nine (9) and ten (10) in block numbered nine (9) of St. Paul Proper, according to the plat of the original town of St. Paul filed of record in the office of the Register of Deeds of said County of Ramsey and more particularly described as follows, viz.: Commencing at the point of intersection of the northerly or rear line of said lots 38 with the easterly line of Wabasha street seventy-five feet to a point midway between the northerly and southerly line of said lot; thence easterly on a line parallel with Fifth street one hundred (100) feet to the easterly line of said lot ten (10); thence northerly on said easterly line of said lot last named seventy-five (75) feet to the northerly line of said lots nine (9) and ten (10) one hundred (100) feet to the place of beginning.

Also one undivided one-eleventh part of all my undivided estate real, personal and mixed which shall remain after the payment and fulfillment of all the other 39 legacies, devises, conditions and provisions of this will.

FOURTEENTH SECTION (14).

I give, devise and bequeath unto my son Rev. Henry Kittson the following:

The Charles Paul mortgage for twenty-five thousand ($25,000.00) dollars, recorded in Book "59" of Mortgage Deeds, page 602 in the office of the Register of Deeds of said Ramsey County, together with the notes or obligations secured thereby.

40 The Angus R. Bethune mortgage for thirty-one hundred and forty-one and 81-100 dollars ($3,141.81-100) together with the notes or obligations secured thereby.

Also the George Morrison mortgages, given to secure forty-one hundred and sixty-three dollars ($4,163.00-100) together with the notes or other obligations and all collaterals accompanying the same.

Also thirty thousand dollars ($30,000.00-100) in St. Paul Globe Publishing Company bonds.

Also two thousand dollars ($2,000.00-100) in school bonds.

41 Also three hundred and fifty-five shares of one hundred dollars ($100.00) each of the St. Anthony Water Power Company.

Also the south twenty-three (23) feet of lot numbered five (5) in Beaumette's Subdivision of block numbered one (1) in Rondo's Addition to St. Paul, according to the recorded plat thereof on file in the office of the Register of Deeds of Ramsey County, Minnesota.

Also one undivided one-eleventh part of all my undivided estate and of all of my estate real, personal and mixed which shall remain after the payment and fulfill-
42 ment of the other legacies, devises, conditions and provisions of this will.

FIFTEENTH SECTION (15).

I give and bequeath and devise unto my son Louis Kittson, in fee, the undivided one-half part of all my real and personal property at Erdenheim, at or near the City of Philadelphia, in the State of Pennsylvania, subject to one-half of the liabilities upon said property and which he is to pay.

Also lot seven (7) in block fifty-two (52) in Rice and Irvine's Addition to the City of St. Paul, in said County of Ramsey. 43

Also one undivided one-eleventh part of all my undivided and of all my estate real, personal and mixed which shall remain after the payment and fulfillment of all the other legacies, devises, conditions and provisions of this will.

SIXTEENTH SECTION (16).

I give, bequeath and devise unto my son James E. Kittson the undivided one-half part of all my real and personal property at Erderheim, at or near the City of Philadelphia, in the State of Pennsylvania, subject to one-half of the liabilities upon said property which he is to pay. 44

Also G. A. B. Shaw's note and mortgage for four hundred dollars and interest.

Also nine thousand five hundred ($9,500.00) of the aforesaid St. Paul Globe Publishing Co's bonds.

Also fifty shares of the St. Anthony Water Power Company stock of one hundred dollars each.

Also one undivided one-eleventh part of all my undivided estate, and of all my estate real, personal and mixed which shall remain after the payment and fulfillment of all the other legacies, devises, conditions and provisions of this will. 45

SEVENTEENTH SECTION (17).

I give, bequeath and devise unto the St. Paul Trust Company in trust for my son Hercules L. Kittson, the following:

Lots numbered three (3) and four (4), in block numbered one (1), in Randall's Addition to the said City of St. Paul.

46 Also the east one-half of lot numbered three (3) in block twenty-two (22) of St. Paul Proper in said city of St. Paul.

Also all the Michael lands in the County of Renville, in said state of Minnesota now owned by me, including the north half of the northeast quarter, the south half of the northwest quarter, and lots (1), two (2), three (3), four (4), five (5) and six (6) in section eighteen (18), township one hundred and sixteen (116), range thirty-five (35).

Also the undivided one-third part of lots numbered 47 one (1), two (2), three (3), four (4), five (5), six (6), seven (7), eight (8), nine (9), ten (10), eleven (11), sixteen (16), seventeen (17), eighteen (18), nineteen (19), twenty (20), twenty one (21), twenty-two (22), twenty-three (23) and twenty-four (24) in Prince & Desnoyer's re-arrangement of part of block three (3) Joel Whitney's Addition to St. Paul and that strip of land between said block three (3) and Jackson Street, all in Ramsey County, Minnesota.

Also five thousand five hundred dollars of the aforesaid the St. Paul Globe Publishing Company bonds.

Also the Samuel H. Kerfoot, of Chicago, mortgage or 48 trust deed for five thousand ($5,000.00) dollars and the notes or obligations secured thereby.

Also the Benjamin T. Colquhoun mortgage for fifteen hundred and seventy-one and 70-100 dollars together with the notes or obligations accompanying the same.

Also the Nellie Morrison mortgages for the sum of six hundred and fifty dollars, each recorded in the office of the Register of Deeds of said Ramsey County in Book "105" of Mortgages on pages 144 and 145, together with the notes and obligations thereby secured.

Also twenty-eight thousand five hundred dollars

($28,500.00) of the stock of the St. Anthony Water 49
Power Company.

Also one undivided one-fifth part of all property real, personal and mixed, inherited by or coming to me from the estate of my late wife Mary A. Kittson.

Also one undivided one-eleventh part of all my undivided estate, and of all my estate, real, personal and mixed which shall remain after the payment and fulfillment of all the other legacies, devises, conditions and provisions of this will.

The trust upon which said bequest and devise is made
is, that said trustee shall pay out of the income of said 50
bequest, and devise to my said son Hercules, the sum of two thousand dollars per year in monthly installments of one hundred and sixty-six and 66-100 dollars ($166.66) per month until he arrives at the age of twenty-five years, when he shall receive all the accumulated profits and one-half in value of all the foregoing bequest and devise, and the remaining one-half he shall receive when he arrives at the age of thirty years, except, that all the rents, issues, income and profits on such remaining half, shall be paid my said son from time to time
after he arrives at said age of twenty-five years. 51

EIGHTEENTH SECTION (18).

I give, bequeath and devise unto The St. Paul Trust Company in trust for my son, Louis Coyle Kittson, the following:

Lot numbered eleven (11) in block numbered nine (9) in Woodland Park Addition to St. Paul, in said Ramsey county.

Also the east one-half (½) of the south one hundred (100) feet of lot ten (10) in block six (6) and the west

52 twenty (20) feet of lot eleven (11) in said block six (6) in St. Paul Proper in said City of St. Paul.

Also my house and lot on Valley street in said City of St. Paul, said lot described as follows: The northeasterly quarter (N. E.'ly ¼) of lot twelve (12) in block nineteen of Ashton & Sherburne's Addition to St. Paul; being twenty-five feet (25 ft.), front on Valley street and more particularly described as follows: Beginning at a point where the line between lots eleven (11) and twelve (12) intersect the south side of Valley street; thence westerly on said line of Valley street twenty-five
53 (25) feet; thence southerly and parallel to the east line of said lot twelve (12) to the center of said lot; thence easterly and parallel with said south line of Valley street, to said east line of lot twelve (12); thence northerly on said east line to the place of beginning.

Also lot fifteen (15) of Jarvis Subdivision of lot three (3) of Bass' Addition of Outlots, according to the recorded plat thereof on file in the office of the Register of Deeds of said Ramsey county.

Also, all my interest in lots four (4) and five (5), in block one (1), in Scribner & Crittenden Subdivision of
54 lots number eight (8) and thirteen (13) of Smith & Lott's Outlots to St. Paul.

Also, the undivided one-third part of lots numbered one (1), two (2), three (3), four (4), five (5), six (6), seven (7), eight (8), nine (9), ten (10), eleven (11), sixteen (16), seventeen (17), eighteen (18), nineteen (19), twenty (20), twenty-one (21), twenty-two (22), twenty-three (23) and twenty-four (24) in Prince & Desnoyer's re-arrangement of part of block three (3), Joel Whitney's Addition to St. Paul, and that strip of land between said block three (3) and Jackson Street, all in Ramsey County, Minnesota.

Also lot four (4), in block eleven (11) in Brunson's 55 Addition to St. Paul, according to the recorded plat thereof on file in the office of the Register of Deeds of said Ramsey County.

Also fifteen thousand ($15,000) dollars of the aforesaid the St. Paul Globe Publishing Company bonds.

Also the Walter S. Alexander mortgage for six thousand dollars, together with the notes or obligations accompanying the same.

Also one bond of the Chamber of Commerce of the City of St. Paul for five hundred dollars.

Also sixteen thousand ($16,000) dollars of the stock of 56 the St. Anthony Water Power Company.

Also Lewis Baker's note for five thousand ($5,000) dollars.

Also David Burke's note for one thousand ($1,000) dollars.

Also one undivided one-fifth part of all property, real, personal and mixed, inherited by or coming to me from the estate of my late wife Mary A. Kittson.

Also one undivided one-eleventh part of all my undivided estate and of all my estate, real, personal and mixed, which shall remain after the payment and fulfill- 57 ment of all legacies, devises, conditions and provisions of this will.

The trust upon which said bequest and devise is made to said Trust Company is, that my said trustee shall pay out of the income of said bequest and devise to my said son, Louis Coyle Kittson, the sum of two thousand ($2,000) dollars per year in monthly installments of one hundred and sixty-six and sixty-six one-hundredths ($166.66) dollars per month until he arrives at the age of twenty-five years, when he shall be entitled to and

58 receive all the cumulated profits and one-half in value of all the foregoing bequests and devise, and the remaining one-half he shall receive when he arrives at the age of thirty years, except that all the issues, rents, income and profits to accrue on such remaining half shall be paid my said son from time to time after he arrives at said age of twenty-five years.

NINETEENTH SECTION (19).

I give, bequeath and devise unto the St. Paul Trust Company, in trust for my son Alfred Kittson, the
59 following:

All the following pieces or parcels of land lying and being in the City of St. Paul, County of Ramsey, and State of Minnesota, described as follows, to-wit: Lot numbered six (6) in block numbered one (1), Asylum Addition number one (1) to the City of St. Paul. Lot number eight (8) of Asylum Outlots. Lots fourteen (14), fifteen (15) and sixten (16) in block numbered one (1), in Randall's Addition to the City of St. Paul. Lot numbered twenty-nine (29) in block numbered fifty-nine (59), in Irvine's Enlargement to Rice and Irvine's Addi-
60 tion to St. Paul. Lot numbered four (4), in Beaumette's Sub-division of block numbered one (1), in Rondo's Addition to St. Paul; subject to a lease to Mrs. Vetal Guerin for and during her life-time on the last mentioned lot.

And the undivided one-third part of lots numbered one (1), two (2), three (3), four (4), five (5), six (6), seven (7), eight (8), nine (9), ten (10), eleven (11), sixteen (16), seventeen (17), eighteen (18), nineteen (19), twenty (20), twenty-one (21), twenty-two (22), twenty-three (23) and twenty-four (24) in Prince & Desnoyer's

Re-arrangement of part of block three (3), Joel Whitney's Addition to St. Paul, and that strip of land between said block three (3) and Jackson Street. 61

Also all the following pieces or parcels of land lying and being in the county of Grant and state of Minnesota, described as follows, to-wit: All of block "C" in the townsite of Ashby according to the recorded plat thereof on file in the office of the Register of Deeds of said Grant county.

Also the following described piece or parcel of land lying and being in the county of Grant and state of Minnesota, described as follows, to-wit: Commencing 62 on the east line of the northwest quarter (N. W. ¼), section ten (10), township one hundred and thirty (130), of range forty-one (41) at a point four hundred and thirty-two (432) feet and five inches south of its northeast corner; thence south two hundred (200) feet; thence west at right angles with last mentioned line two hundred and twenty (220) feet; thence north two hundred (200) feet; and thence two hundred and twenty (220) feet to place of beginning, containing forty-four thousand (44,000) square feet of land.

Also the Parish of St. John the Evangelist mortgage 63 for seventy-two hundred and fifty ($7,250) dollars, together with the notes or obligations accompanying the same and interest.

Also the Charlotte C. B. Hatch mortgage to me, together with the notes or obligations accompanying the same and interest.

Also the mortgage of Mary Etta Manship and C. H. Manship for the sum of one thousand dollars ($1,000.00), together with the notes or obligations accompanying the same and interest.

64 Also the mortgage of Jabez T. O'Dell and Roza I. O'Dell for the sum of seven thousand ($7,000.00) dollars, together with the note or obligation accompanying the same and interest.

Also the mortgage of Charles Paul and Mary Paul for the sum of five thousand ($5,000.00) dollars, together with the note or obligation accompanying the same and interest.

Also twenty-one thousand seven hundred ($21,700.00) dollars of the stock of the St. Anthony Water Power Company.

65 Also six thousand ($6,000.00) dollars of the stock of The St. Paul Trust Company.

Also fifteen bonds of one thousand ($1,000.00) dollars each of the St. Paul Globe Publishing Company.

Also one undivided one-fifth part of all property, real, personal and mixed, inherited by or coming to me from the estate of my late wife Mary A. Kittson.

Also one undivided one-eleventh part of all my undivided estate and of all my estate, real, personal and mixed which shall remain after the payment and fulfillment of all the other legacies, devises, conditions and provisions of this will. 66

The trust upon which said bequest and devise is made to said Trust Company is, that said trustee shall, out of the income of the said bequest and devise, pay for the tuition and support of my said son, Alfred, until he arrives at the age of twenty-one years, and shall, out of the income, pay to my said son from the time he reaches the said age of twenty-one years and until he arrives at the age of twenty-five years the sum of two thousand ($2,000.00) dollars per year in monthly installments of one hundred and sixty-six and 66-100 dollars per month,

and when he arrives at the age of twenty-five years, shall 67
pay to my said son all the accumulated profits and shall transfer to him one-half in value of all the foregoing bequest and devise, and shall transfer to him when he reaches the age of thirty years the remainder of said bequest and devise, except that the rents, issues, income and profits accruing on such remainder shall be paid to my said son from time to time after he reaches the age of twenty-five years.

TWENTIETH SECTION (20).

I give and bequeath to the said St. Paul Trust Com- 68
pany four hundred thousand ($400,000.00) dollars four per cent United States registered bonds in trust for my daughters Anna Mary Kittson, Mary Elizabeth Kittson, Louise Lorette Kittson and Mary Esther Kittson, that is, one hundred thousand ($100,000.00) dollars of bonds for each of said daughters, and the said trust is as follows: The said trustee shall collect and receive the interest on such bonds and pay as collected to each of said daughters for and during her life, less reasonable charges of collection, the interest so received on her said
one hundred thousand dollar share, but upon the death 69
of each of said daughters who shall die unmarried and without issue her surviving the said trust as to the bonds of such daughter shall cease and the said bonds shall at once become a portion of my undivided estate and its disposition be as elsewhere in this my will provided. If, however, any one or more of my said daughters shall have married before her death and have left issue surviving her, the title to the one hundred thousand dollars bonds provided for the use of such daughter, as aforesaid, and all accumulated and unpaid interest thereon, shall vest at once in said issue.

70 TWENTY-FIRST SECTION (21).

I also give and devise to the St. Paul Trust Company, four undivided one-eleventh parts of all my undivided estate, and of all my estate, real, personal and mixed which shall remain after the payment and fulfillment of all the other legacies, devises, conditions and provisions of this will, in trust for my daughters, Anna Mary Kittson, Mary Elizabeth Kittson, Louise Lorette Kittson and Mary Esther Kittson, that is, one undivided one-eleventh part or share for each of said daughters, and the said trust is, that said trustee shall collect and
71 receive the rents, issues, income and profit thereof and pay annually or oftener to each of said daughters during her life the rent issue, income and profit so received on her said one-eleventh share, but upon the death of each of my said daughters who shall die unmarried and without issue, her surviving the trust as to such daughter's share shall cease, and such share shall at once become a part of my undivided estate and its disposition be as elsewhere in this my will provided. Upon the death, however, of any one or more of my said daughters who shall have married and left issue surviving her, the title
72 to said undivided one-eleventh part or share provided for the use of such daughter, as aforesaid, and all accumulations thereon shall vest at once absolutely in such issue.

TWENTY-SECOND SECTION (22).

I give, bequeath and devise to the said St. Paul Trust Company, the undivided two-fifths parts or shares of all property, real, personal and mixed, inherited by or coming to me from the estate of my late wife Mary A. Kittson, in trust for my daughters, Louise Lorette

Kittson and Mary Esther Kittson, that is to say, 73
one undivided one-fifth part for each of said two daughters, and the said trust as to the property thus bequeathed and devised, is the same as to said two daughters as that contained in the last preceding section, and all the provisions of said section, so far as they relate to the shares of my said daughters named in this section shall apply to and govern this bequest and devise.

TWENTY-THIRD SECTION (23).

I desire and direct that my said executor and trustee 74
shall use and apply the sum of fifteen thousand ($15,000) dollars per annum for the payment of the household expenses of the residence now occupied by me and a portion of my children, at the corner of Dayton and Summit avenues, in said city of St. Paul, including the lodging and boarding of such of my children as shall there reside and for the payment of ordinary expenses, repairs and taxes and assessments to fall due on said residence and the stable and other appurtenances to said dwelling, and on the land upon which the same are situated. The said sum shall be paid in monthly install- 75
ments of twelve hundred and fifty ($1,250.00) dollars per month on the first day of each and every month after my decease, and until the youngest of my children named in this will arrives at age; provided, however, that if the said premises are sold before such child arrives at such age, or in case all of my children abandon and give up the use of said homestead as a dwelling, all of said payments shall cease, and all moneys or funds or securities hereinafter set aside for such payments thereafter shall be restored to and become part of my

76 undivided estate. I desire that my son Norman Kittson,
so long as he will do it, and my children at such resi-
dence do not object, shall have the disbursement of said
monthly sums and that said Trust Company deliver to
him the allowance aforesaid. The children I expect to
reside at said dwelling are the children of my late wife,
Mary A. Kittson, and also my daughter Mary Elizabeth
Kittson and my son Norman Kittson. My son James
E. Kittson having been given a half interest in my real
and personal property at Erdenheim, I presume that he
will reside there. I direct that the income derived by
77 my estate from the firm of Auerbach, Finch & Van
Slyck shall be used for the aforesaid purposes so far as
the same will go, and expect that the same will be suffi-
cient therefor for some time to come; but direct my said
executor and trustee as soon as shall be expedient and
advisable to set aside from my undivided estate and put
at interest on good sufficient security a sum of money
sufficient to produce said sum of twelve hundred and
fifty ($1,250.00) dollars per month.

My executor or trustee may also, if necessary to pay
said allowances, anticipate such interest by temporary
78 loans from time to time from other portions of my un-
divided estate.

Twenty-fourth Section (24).

If any one or more of my children named in this will shall die unmarried and without issue of such marriage, him or her surviving, then all property and everything bequeathed and devised in this will to or for such child which has not been sold, bequeathed, devised or otherwise disposed of by such child or by his or her trustee for his or her benefit, shall become the property of and

be divided share and share alike among the surviving 79
brothers and sisters of the one so dying, provided, however, that if any one or more of the brothers or sisters named in this will shall have been married, and died previous to the death, the child referred to in the beginning of this section leaving issue of such marriage, him or her then surviving, the said issue shall take what would have been the share in this section provided for his or her deceased parent, had such parent been then living; provided, however, in the case of any child for whom a bequest or devise has been made in this will to
The St. Paul Trust Company in trust, the said company 80
shall hold in the same trust for any such child the property which may result to such child from this bequest and devise when and to the same extent said trust is applicable.

Twenty-fifth Section (25).

It is my will that none of the property inherited by me from or through my late wife, Mary A. Kittson, shall be used or applied to the payment of any of the legacies or bequests made in this will, nor considered as a part
of my undivided estate as that expression is used in this 81
will; but that such inherited property shall belong exclusively to the children of my said late wife, save as otherwise provided for in the twenty-fourth section of this will.

Twenty-sixth Section (26).

It is my will, and I direct, that as soon after my death as feasible my executor shall offer to Lewis Baker, for sale at par on such terms as shall be just and fair to said Baker in the judgment of my said executor, my

82 nineteen hundred and ninety-eight shares of stock in the St. Paul Globe Publishing Company, and the said Baker shall have the privilege of accepting such offer and purchasing said stock, or a majority thereof sufficient to give him a controlling interest in the said Company; provided, however, that subject to said Baker's right to purchase sufficient to give him said controlling interest my children or any of them or their trustee for them may purchase a portion of said stock.

TWENTY-SEVENTH SECTION (27).

83 I hereby authorize and empower my said executor and trustee in both capacities, or either, to sell in fee or otherwise on the best terms obtainable in its judgment either at public or private sale, for cash, or part cash and part on time, any portion or portions of my undivided estate real, personal or mixed, and any of my said estate which has been conveyed to said company in trust, except the four hundred thousand ($400,000.00) dollars United States bonds bequeathed to said company for the use of my daughers in the Twentieth Section of this will, and subject also to the conditions in the Third Section
84 of this will as to Midway Park and the adjacent land mentioned in such section, and on such sale or sales I authorize and empower my said executor and trustee in both capacities or either good and sufficient deeds, conveyances and all other appropriate instruments in the premises to make, execute, acknowledge and deliver; provided, however, that in case any sale or sales are made of any property which is held by said executor or trustee in trust for the benefit or use of any of my said children the proceeds of such sale shall be placed and held in the same trust.

TWENTY-EIGHTH SECTION (28). 85

I also authorize and empower and direct the said St. Paul Trust Company, as my executor and trustee, or in either capacity, to loan at interest for such reasonable time or times as it shall deem expedient and on good security the funds which will be in its hands under the special trust hereinbefore named for the benefit of the beneficiaries of such trusts; provided, however, that no other security shall be taken on such loans than bonds of the United States, the State of Minnesota, the County of Ramsey or the City of St. Paul, or improved real 86 estate in the City of St. Paul worth at least twice the sum loaned.

TWENTY-NINTH SECTION (29).

I hereby authorize and request my said trustee to protect, take charge of and control my capital and interest in the firm of Auerbach, Finch & Van Slyck, and upon the expiration or a sooner termination of said firm, or when said capital shall in any other manner come under the control of said trustee, I hereby authorize said trustee 87 in its discretion to re-invest my said capital or any part thereof, in a new firm, of which Maurice Auerbach shall be one, on substantially the same terms and conditions (except as to the time of continuance of the new firm which time shall be in the discretion of said trustee) as is provided for in the present articles of said firm. The capital of said new firm, however, not to be less than four hundred thousand ($400,000) dollars including my investment of two hundred ($200,000.00) dollars.

88

THIRTIETH SECTION (30).

In case it should turn out that there is any of my estate that has not been disposed of by the preceding sections of this will, I hereby bequeath and devise the same to and for the use of my said children, share and share alike, or their issue, in the same manner and on the same conditions that they have been given bequests and devises of a similar nature in the foregoing portions of this will.

THIRTY-FIRST SECTION (31).

89

Being fully convinced that I have in the provisions of this my will made just and proper provision for all my children and all persons having any just claim in my estate, I hereby declare and direct that in case any of my children hereinabove named or any legatee under this my will shall commence any suit or suits in any court of law or equity, or in any court whatsoever, or by any way or means seek to set aside this my will or sue or disturb or cause to be sued or disturbed, my executor herein named or its successor, or the trustee
90 herein named or its successor, or any person to whom anything is given in this my will from the receiving and quietly enjoying and possessing of anything herein given by me as aforesaid, then my will is, that all and every the bequests, legacies, devises and other provisions herein by me given, or made to or for such person or persons who shall so sue and disturb or proceed as aforesaid, shall cease and determine and become utterly void and then and thereafter the legacies, bequests and devises and other provisions of this my will given to or for such person or persons, so sueing, disturbing or

proceeding, shall be divided among such of my children 91
above named as shall not have participated in such action, or their issue, on the basis hereinbefore given in case of the death of one or more of my children, share and share alike.

THIRTY-SECOND SECTION (32).

I do hereby revoke all former wills by me made.

In testimony whereof, I have hereunto set my hand and seal, this fourth day of August, A. D. 1886.

NORMAN W. KITTSON. (Seal)

92
The foregoing instrument embracing twenty-eight pages and two and a part blank pages, and thirty-two sections numbered one to thirty-two, both inclusive, was at the date hereof signed, sealed, published and declared by the said Norman W. Kittson, as and for his last will and testament in the presence of us, who, at his request and in his presence and in the presence of each other, have subscribed our names as witnesses thereto, at St. Paul, Minnesota, August 4th, 1886.

SAMUEL D. FLAGG,
Residing at St. Paul, Minnesota.
ISAAC V. D. HEARD, 93
Residing at St. Paul, Minnesota.
DANIEL MURPHY,
Residing at St. Paul, Minnesota.

Know all men by these presents, that the following is my first and up to the date of this codicil, my only codicil to the foregoing my last will and testament; which last will and testament is dated on the fourth day of August, A. D. one thousand eight hundred and eighty-six, and witnessed by Samuel D. Flagg, Isaac V. D. Heard and Daniel Murphy.

94 **FIRST.**

I do hereby ratify and confirm my said will in all respects, save in so far as the same or any part thereof is revoked or altered by this codicil.

SECOND.

Whereas some of the property embraced in the special devises and bequests in said will has, since the making of said will, been disposed of by me and other property in such devises and bequests are liable to be
95 so disposed of before my death, or my title to some of it might fail; therefore, I direct and it is my will, that if any special devise or bequest of specific property has been or shall be rendered nugatory in whole or in part by the sale or disposition of such property or any part thereof before my death or by reason of the failure of my title thereto, such device or bequest, or the part thereof thus rendered nugatory shall be made good as a first preference out of my undivided estate; the value of such property thus to be made good when sold or disposed of to be fixed by the amount I received on such
96 sale or disposition, with interest thereon at the rate of seven per cent per annum from the time of such sale or disposition to the time when it is so made good. In case the amount I thus received cannot be ascertained, or my title to any property thus devised or bequeathed should fail, the value of such property in such devise or bequest to the extent of it being rendered nugatory as aforesaid, shall be the market value as it was at the date of said will, with interest thereon at the rate of seven per cent per annum from the date of said will to the date of making good such devise or bequest.

THIRD. 97

It is my will that the shares bequeathed and devised by the foregoing will in my undivided estate to or for the benefit of Hercules L. Kittson, Louise Coyle Kittson, Alfred Kittson, Louisa Lorette Kittson and Mary Esther Kittson, my children by my late wife, Mary A. Kittson, shall be diminished by deducting from each share respectively the value of all the property inherited respectively by such children from my said wife and all property inherited by me from her and devised by me to them respectively in share, by said will, so that out of my undivided estate said Hercules L. Kittson, Louis 98
Coyle Kittson, Alfred Kittson, Louisa Lorette Kittson and Mary Esther Kittson shall each receive or have the benefit of only one-eleventh part thereof after and subject to the diminishment aforesaid; such value to be determined by the appraisment thereof in the matter of the estate of my said late wife, which appraisement is now on file in the office of the Probate Court of Ramsey County, Minnesota.

FOURTH.

When I refer in the foregoing will and this codicil to
my undivided estate, I mean that portion of my estate 99
which is left after the fulfillment of bequests and devises of specific property and sums of money and exclusive of property inherited by me from my late wife, Mary A. Kittson.

In Witness Whereof, to this present writing, which I hereby declare to be a codicil to my last will and testament, and which I direct to be added thereto and taken as a part thereof, I have set my hand and seal at Saint Paul in the State of Minnesota, this seventh day of December, A. D. one thousand eight hundred and eighty-seven. Norman W. Kittson. (Seal)

100 Signed, sealed, published and declared by the said Norman W. Kittson as and for a codicil to his last will and testament, and to be taken as a part thereof, in the presence of the three several persons whose names are hereunto subscribed as witnesses to signing, sealing and publishing the same, which said three persons did so hereunto subscribe their names at the request and in the presence of the said Norman W. Kittson, and in the presence of each other, on the seventh day of December, A. D. one thousand eight hundred and eighty-seven.

SAMUEL D. FLAGG,
Residing at St. Paul, Minn.
ISAAC V. D. HEARD,
Residing at St. Paul, Minn.
DANIEL MURPHY,
Residing at St. Paul, Minn.

150 U S 572

150 U S 572

Office Supreme Court U. S.
FILED.
FEB 28 1892
JAMES H. McKENNEY,
CLERK.

In the Supreme Court
OF THE UNITED STATES.

JESSE P. FARLEY,
Appellant,
against
JAMES J. HILL, THE ST. PAUL TRUST COMPANY, as Executor, &c., et al.,
Appellees.

Answer of The St. Paul Trust Company, as Executor, &c., to Petition for Substitution.

(Copy)

HARVEY OFFICER,
Attorney for Executor.

H. M. SMYTH PRINTING COMPANY, ST. PAUL.

1

IN THE SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, A. D. 1891.

2

Jesse P. Farley,
Appellant,
vs.
James J. Hill, The St. Paul Trust Company, (as Executor of the Last Will and Testament of Norman W. Kittson, Deceased,) and **The St. Paul, Minneapolis & Manitoba Railway Company,**
Appellees.

3

To the Honorable, the Judges of the Supreme Court of the United States.

The St. Paul Trust Company, as executor of the last will and testament of Norman W. Kittson, deceased, for its separate answer to the petition of Norman Kittson, and others, to be substituted as defendants in the above entitled suit, in place of this defendant, respectfully states to this court:

First: That this defendant admits the facts pleaded and stated in said petition, to and including the

4 averment that the account of said executor has been duly filed and allowed in said Probate Court, at the beginning of *folio 11* of said petition.

Second: Said executor denies that the value of the said estate of said testator, not distributed, is several millions of dollars, or that it is of any other or greater value than the appraised value thereof, as the same has been inventoried and appraised in said Probate Court, to-wit, the sum of $2,734,818.64. It admits that the claim of said Farley, involved in 5 the suit now pending in this court, is very large, exceeding more than a million dollars; and avers that said claim, as made by said Farley, the plaintiff therein, is more than double the actual value of said estate of said testator.

Third: This defendant admits the fact to be that said Farley has never filed any claim in said Probate Court, against the estate of said testator; and that except for the pendency of this suit, and the said substitution of this executor as defendant therein in place of said testator, the said estate would have 6 been long since fully closed up and settled in said Probate Court, and distributed, as averred in said petition.

Fourth: This defendant admits the facts averred in said petition, commencing with the last paragraph, on *page 4*, and in *folio 12* thereof; but it avers that the facts therein stated are not so fully and completely stated, as to fully advise this court of all the facts and circumstances which lead to the filing of its said petition in said Probate Court, (referred to in said *folio 12*,) nor of the nature, object and purpose of the said petition, nor of the statutes of the State of Minnesota, upon which the same was founded and based, nor the interpretation and construction of said statutes by the Supreme Court of said State, upon the facts stated in said petition. 7

Fifth: And to the end that this honorable court may be more fully advised in the premises, this defendant states the facts to be that ***chapter 53*** of the General Statutes of the State of Minnesota, at *page 585*, and which chapter relates to the "*Payment of debts and legacies of deceased persons*," as said 8
chapter has been amended by ***chapter 69*** of the General Laws of said State for 1879, provides substantially as follows:

That when letters testamentary, or of administration, are granted by any Probate Court, the judge thereof shall, by order, allow such time as the circumstances of the case require, not less than six months, nor more than eighteen months, in the first instance, for creditors to present their claims to such court for examination and allowance, and fix a time and place for the examination and allowance thereof. 9
That notice of the time so limited, and of the date and place of such examination, shall be given by publication of such order at least four weeks successively, in some newspaper printed in such county, and by posting such notice in four public places in the county, or in any other manner the court may direct.

Sections 14 and 16, on *pages 586-7* of said chapter, provide as follows:

"§ 14. CLAIMS BARRED IF NOT PRESENTED TO "COMMISSIONERS. Every person having a claim

10 "against a deceased person proper to be allowed by "the commissioners, [now by the judge of probate,] "who shall not, after the publication of notice as "required herein, exhibit his claim to the commis-"sioners [now court] within the time limited by the "court for that purpose, shall be forever barred from "recovering such demand or from setting off the same "in any action whatever."

"§ 16. PROCEEDINGS IN ACTIONS PENDING AGAINST
"DECEASED. *All actions which are pending against*
"*a deceased person at the time of his death, may,*
11 "*if the cause of action survives, be prosecuted to*
"*final judgment; and the executor or administrator*
"*may be admitted to defend the same; and if judg-*
"*ment is rendered against the executor or adminis-*
"*trator, the court rendering it shall certify the same*
"*to the Probate Court, and the amount thereof shall*
"*be paid in the same manner as other claims duly*
"*allowed against the estate.*"

That *sections 33 and 34* of said chapter, at *page 589*, provide as follows:

12 "§ 33. (Sec. 29.) ORDER LIMITING TIME FOR PAY-"ING DEBTS. The Probate Court, at the time of "granting letters testamentary, or letters of admin-"istration, shall make an order allowing to the "executor or administrator a period of time for "disposing of the estate, and paying the debts and "legacies of the deceased person, not exceeding, in the "first instance, one year and six months."

"§ 34. (Sec. 30.) TIME MAY BE EXTENDED, HOW "LONG. The Probate Court may, on application of "the executor or administrator, extend the time for "paying debts and legacies, not exceeding six months

"at a time, nor so that the whole time allowed to 13
"the original executor or administrator shall exceed "three years, unless, under the provisions of the will, "in case of an executor, a larger time may be "necessary; *and provided,* that after the expiration "of the time finally limited, an executor or administrator shall not be disqualified from doing anything "necessary to settle the estate which he might "have done before, unless removed by the Probate "Court; but this provision shall not relieve him from "any liability or penalty incurred by his failure to "settle the estate within the time limited." (*As* 14
amended 1873, c. 58, § 1.)

That *sections 46, 47, 48, 49 and 50* of said chapter, at *pages 590 and 591,* provide as follows:

"§ 46. (Sec. 43.) CONTINGENT CLAIMS, HOW PRE-"SENTED AND PAID. If any person is liable as security "for the deceased, or has any other contingent claim "against his estate which cannot be proved as a debt "before the commissioners, or allowed by them, the "same may be presented, with the proper proof, to "the commissioners, who shall set forth the claim 15
"and proof in their report; and said court may order "the executor or administrator to retain in its "hands sufficient to pay such contingent claim when "the same becomes absolute; or, if the estate is "insolvent, sufficient to pay a proportion equal to "the dividends of the other creditors."

"§ 47. (Sec. 44.) CONTINGENT CLAIM, BECOMING "ABSOLUTE, MAY BE PRESENTED, ETC. If such con-"tingent claim becomes absolute, and is presented to "the executor or administrator, at any time within "two years from the time limited for other creditors

16 "to present their claims to the commissioners, it "may be proved before the commissioners already "appointed, or before others to be appointed for "that purpose, in the same manner as if presented "for allowance before the commissioners had made "their report; and the persons interested shall have "the same right of appeal as in other cases.

"§ 48. (Sec. 45.) CONTINGENT CLAIM ENTITLED "TO PAYMENT, WHEN. When such contingent claim "is allowed, as mentioned in the preceding section, "or established on appeal, the creditor is entitled to
17 "receive payment to the same extent as other cred-"itors, if the estate retained by the executor or "administrator is sufficient for that purpose; but if "the claim is not finally established, or if the assets "retained in the hands of the executor or adminis-"trator are not wholly exhausted in the payment of "such claims, such assets, or the residue, shall be "disposed of by order of the Probate Court, to the "person entitled to the same, according to law."

"§ 49. (Sec. 46.) CONTINGENT CLAIM MAY BE "PRESENTED TO PROBATE COURT, WHEN. If the
18 "claim of any person accrued or becomes absolute "at any time after the time limited for creditors to "present their claims, the person having such claim "may present it to the Probate Court, and prove the "same, at any time within one year after it accrues "or becomes absolute; and if established in the "manner provided in this chapter, the executor or "administrator shall pay it, if he has sufficient assets "for that purpose, or such part as he has assets to "pay; and if real or personal estate afterward comes "to his possession, he shall pay such claim, or such "part as he has assets sufficient to pay, not exceed-

"ing the proportion of the other creditors, in such 19
"time as the court may prescribe."

"§ 50. (Sec. 47.) Creditor May Recover of "Heirs, etc., When. When a claim is presented "within one year from the time it accrues, and is "established, as mentioned in the preceding section, "and the executor or administrator has not sufficient "assets to pay the whole of such claim, the creditor "may recover such part of his claim as the executor "or administrator has not assets to pay, against the "heirs, devisees or legatees. who have received sufficient real or personal property from the estate." 20

Sixth: That *chapter 56* on *page 596* of said General Statutes, which provides for the "*Partition and distribution of estates*, at *section 4* of said chapter, provides as follows:

"§ 4. Assignment of Residue of Estate, After "Payment of Debts, etc. After the payment of the "debts, funeral charges, and expenses of administra- "tion, and after the allowance made for the expenses "of the maintenance of the family of the deceased, "and for the support of the children under seven 21
"years of age, and after the assignment to the widow "of her dower, and of her share in the personal "estate—or when sufficient effects are reserved in the "hands of the executor or administrator for that "purpose—the Probate Court shall, upon the appli- "cation of the executor or administrator, or any "other party having an interest in the estate of the "deceased, by a decree for that purpose, assign the "residue of the estate, if any, to such other persons "as are by law entitled to the same; etc., etc."

22 And the law above stated and quoted, was, at the date of the death of said testator, and ever since has been, a part and parcel of the General Laws of said State. (The Probate Code of 1889, took effect October 1, 1889, after claims against the estate had been duly barred, and did not substantially change the provisions quoted, so as to in any manner affect the rights of parties.)

Seventh: That prior to January 18, 1890, when said petition of said executor was filed in said Probate Court, as stated, all claims and demands 23 against said estate which had not been duly presented to and allowed by said Probate Court, pursuant to the order of said court fixing a time and place for the presentment, hearing and examination thereof, due notice of which had been given by publication and posting thereof, as required by law, and by said order—had been duly barred; and the said executor had duly paid all claims which had been so duly proved and allowed by said Probate Court, and had also paid all funeral expenses, and expenses of administration; and the said estate was then ripe 24 for a final accounting, and for a distribution, under *section 4* of *said chapter 56*, above quoted, *save and except* the claim of said Farley, then (and ever since) pending in this court, on the said appeal from the Circuit Court of the United States for Minnesota, and in which suit this defendant, as executor, had been duly substituted.

Eighth: That while the said estate was in this condition, the said Farley "*notified said executor to* "*make no further payments* of legacies or bequests "under said last will and testament, and to make

"no further distribution or division of said estate of 25
"said deceased, except at its own risk and peril, of "being compelled to pay any such judgment as may "be so hereafter rendered in his favor, and certified, "as aforesaid, notwithstanding any such division "and distribution thereof, among the persons entitled "thereto." *See the said petition of January 18, 1890.* (*Exhibit A*, hereto.)

And at the same time, the said co-defendants in this action, (to-wit, the said J. J. Hill and said Railway Company,) had notified this defendant, as such executor, that in the event the said Farley 26
should recover any judgment in this suit, and they or either of them should pay such judgment, they would claim contribution therefor, against the said executor; and that by reason of such claim, they also notified this defendant not to pay the legacies and bequests under said will, nor otherwise distribute the said estate, pending the said Farley suit.

Ninth: That this defendant was then advised by counsel, that the courts of the State of Minnesota had never given a judicial construction of *section 16* 27
of said *chapter 53*, above quoted, upon a similar state of facts as then existed in the matter of this estate; and it was further advised, that it was possible the said courts would so interpret and construe the said *section 16*, and the laws of said State, as to permit, order and direct the payment of said legacies, and a distribution of said estate, *notwithstanding* the fact of the pendency of said Farley suit in this court, in which this respondent was then a party defendant, as aforesaid.

28 *Tenth:* That said executor, being then ready, willing and desirous to pay the said legacies, and distribute the said estate, as soon as it could do so, without being thereby rendered liable to pay any judgment which said Farley might hereafter obtain herein, and without being thereby rendered liable to be called upon for contribution, by its co-defendants, after the said estate should have been so distributed, and with intent to have said question of liability determined, by the construction and interpretation of said *section 16*, by the courts of said State, did, 29 with the full approval of all the said petitioners herein, file in said Probate Court its said petition of January 18, 1890.

That a true copy of the said petition, so filed, and of the several orders of said Probate Court, and of the District Court of said Ramsey County, upon appeal, and of the appeal of said executor, from the order of said District Court, to said Supreme Court of said State, is hereto annexed marked "Exhibit A," and is hereby referred to as a part of this answer. (The said "Exhibit A" being the "*Paper Book*," or 30 transcript of the return to said appeal, upon which the said cause was thereafter argued and submitted in said Supreme Court of said State.)

Eleventh: That the construction and interpretation of the said law of said State, upon the facts aforesaid, by the Supreme Court of said State, and its final adjudication thereof, is reported in *45 Minn. p. 197*, and to which reference is hereby made.

That this defendant is advised that the necessary result of the said construction and adjudication, is to hold the estate of said testator in the possession of the said executor, or of its successor, as such, 31 subject to any judgment which said Farley may hereafter obtain in this suit; that said Supreme Court has thereby determined and adjudged that there shall be no payment of any of said legacies, nor any distribution of said estate, pending the said litigation; that the dismissal of this defendant, as a party to this suit, and the substitution asked for in this motion, cannot operate, if made, to reverse, modify or set aside the said interpretation, construction and adjudication in the premises; and if made, the said executor could not thereafter, pending this 32 suit, be compelled to distribute the said estate, by the courts of Minnesota, unless the said adjudication and construction shall be hereafter reversed or modified by the Supreme Court of said State.

Twelfth: That ever since the said substitution in said Circuit Court of the United States, and since the said appeal has been pending in this court, this defendant has had, and now has, counsel of this honorable court, learned in the law, retained to protect and defend the interests of the said estate 33 in said litigation.

And this defendant denies that the said substitution asked for, can or will operate to close up, settle or distribute the said estate. That, save as aforesaid, and whenever it can be relieved and released from its possible obligation and liability, as well to said plaintiff as to its said co-defendants, this defendant is now, and has been ever since the said 18th day of January, 1890, ready and willing to discharge and perform all its trusts and obligations under the said will, and according to law.

28 *Tenth:* That said executor, being then ready, willing and desirous to pay the said legacies, and distribute the said estate, as soon as it could do so, without being thereby rendered liable to pay any judgment which said Farley might hereafter obtain herein, and without being thereby rendered liable to be called upon for contribution, by its co-defendants, after the said estate should have been so distributed, and with intent to have said question of liability determined, by the construction and interpretation of said *section 16*, by the courts of said State, did, 29 with the full approval of all the said petitioners herein, file in said Probate Court its said petition of January 18, 1890.

That a true copy of the said petition, so filed, and of the several orders of said Probate Court, and of the District Court of said Ramsey County, upon appeal, and of the appeal of said executor, from the order of said District Court, to said Supreme Court of said State, is hereto annexed marked "Exhibit A," and is hereby referred to as a part of this answer. (The said "Exhibit A" being the "*Paper Book*," or 30 transcript of the return to said appeal, upon which the said cause was thereafter argued and submitted in said Supreme Court of said State.)

Eleventh: That the construction and interpretation of the said law of said State, upon the facts aforesaid, by the Supreme Court of said State, and its final adjudication thereof, is reported in *45 Minn. p. 197*, and to which reference is hereby made.

That this defendant is advised that the necessary result of the said construction and adjudication, is to hold the estate of said testator in the possession

of the said executor, or of its successor, as such, 31
subject to any judgment which said Farley may hereafter obtain in this suit; that said Supreme Court has thereby determined and adjudged that there shall be no payment of any of said legacies, nor any distribution of said estate, pending the said litigation; that the dismissal of this defendant, as a party to this suit, and the substitution asked for in this motion, cannot operate, if made, to reverse, modify or set aside the said interpretation, construction and adjudication in the premises; and if made,
the said executor could not thereafter, pending this 32
suit, be compelled to distribute the said estate, by the courts of Minnesota, unless the said adjudication and construction shall be hereafter reversed or modified by the Supreme Court of said State.

Twelfth: That ever since the said substitution in said Circuit Court of the United States, and since the said appeal has been pending in this court, this defendant has had, and now has, counsel of this honorable court, learned in the law, retained to
protect and defend the interests of the said estate 33
in said litigation.

And this defendant denies that the said substitution asked for, can or will operate to close up, settle or distribute the said estate. That, save as aforesaid, and whenever it can be relieved and released from its possible obligation and liability, as well to said plaintiff as to its said co-defendants, this defendant is now, and has been ever since the said 18th day of January, 1890, ready and willing to discharge and perform all its trusts and obligations under the said will, and according to law.

34 Wherefore said executor humbly prays that the said petition and motion for substitution may be denied.

HARVEY OFFICER,
Atty. for The St. Paul Trust Company,
As Executor, &c.

STATE OF MINNESOTA, }
COUNTY OF RAMSEY. } ss.

Judson W. Bishop came before me personally, and being duly sworn, doth say that he is an officer, to-wit, the president of the St. Paul Trust Company, 35 as executor, &c., named in the suit above entitled; that the foregoing answer to petition of Norman Kittson, et als., is true of his own knowledge, except as to those matters therein stated on his information and belief, and as to those matters that he believes it to be true.

(Signed,) JUDSON W. BISHOP.

Subscribed and sworn to before me, this 18th day of February, A. D. 1892.

(Signed,) W. S. BRILL,
36 (Notarial Seal.) Notary Public,
Ramsey County, Minn.

Exhibit A.
to answer

STATE OF MINNESOTA,

Supreme Court.

The St. Paul Trust Company, as Executor,
Etc.,
Appellant,
against
James J. Hill and The St. Paul, Minneapolis & Manitoba Railway Company,
Respondents.

PAPER BOOK.

Harvey Officer,
Attorney for Appellant.

H. M. SMYTH PRINTING COMPANY, ST. PAUL.

1

STATE OF MINNESOTA,

SUPREME COURT.

2

State of Minnesota, Ramsey County—ss. In the Probate Court.

In the matter of the Estate of NORMAN W. KITTSON, deceased.

To Hon. Samuel Morrison, Judge of said Probate Court:

The petition of the St. Paul Trust Company, as executor of the last will and testament of Norman W. Kittson, deceased, respectfully shows to the court and states: 3

That said executor herewith files its first account of moneys collected and received, and paid out and disbursed on account of said estate from the date of its appointment as such executor up to the tenth day of January, A. D. 1890, and leaving a balance in its hands on said last named date of $79,226.89, save and except that the three last items of disbursements in said account for legal services of Messrs. Young & Lightner, I. V. D. Heard, and R. B. Galusha, have not yet been actually paid in full, and are subject to the examination and approval of this court.

4 That said executor has paid all the expenses and charges of the last sickness and funeral expenses of said deceased, and the charges and expenses of the administration of said estate under said will, so far as appears in said account; and has also paid and satisfied all just claims and demands against said estate, which have been examined and allowed by this court as claims against said estate, and has also made certain advances to certain of the legatees named in said will, on account of specific legacies, and on account of their distributive shares of the estate of said deceased, under
5 his last will and testament. But that said executor has not paid all of the legacies and bequests named in said will, and cannot make the said account as a final account of its administration of the said estate, for the reasons following, that is to say:

That during the life time of the said Norman W. Kittson, deceased, one J. P. Farley, a citizen of the State of Iowa, commenced an action in the United States Circuit Court for the District of Minnesota, wherein the said J. P. Farley was plaintiff, and James J. Hill, the St. Paul, Minneapolis & Manitoba Railway
6 Company, and the said Norman W. Kittson were defendants; that the said United States Circuit Court obtained jurisdiction of each of said defendants, and of the subject matter of said action; that the said Norman W. Kittson duly appeared and answered in said cause, and that said cause was at issue and undetermined in said court at the date of his death.

That after the death of said deceased, and after the due appointment and qualification of The St. Paul Trust Company, as the executor of the last will and testament of said deceased, such proceedings were taken and had in said cause in said United States Cir-

cuit Court, that said The St. Paul Trust Company, as 7
the executor of the last will and testament of said deceased,
was substituted as one of the defendants in said
action, in place of said Norman W. Kittson, deceased,
and that said cause was thereafter tried, submitted and
taken under advisement in said United States Circuit
Court.

That afterwards, such proceedings were duly taken
and had in said cause, in said United States Circuit
Court, that on or about the 27th day of September,
1889, an order and decree was filed and entered in said
cause, whereby the said plaintiff's bill of complaint was 8
dismissed, and a judgment duly entered therein, dismissing
the said bill of complaint, and that said defendants
recover of said plaintiff their costs in said
cause, to be taxed.

That afterwards, and on the said 27th day of September,
1889, said plaintiff in said action, filed in said
United States Circuit Court, his certain petition for an
appeal from said decree dismissing said action, to the
Supreme Court of the United States, and his certain
bond in the sum of two thousand dollars, conditioned
according to the statute in such case provided; and 9
thereupon an order was made and entered in said cause
and filed therein on said 27th day of September, 1889,
allowing the said appeal, and whereby it was further
ordered by said court that said bond shall operate as a
supersedeas of said judgment for costs.

Your petitioner further states that it is advised that
the claim and demand of said J. P. Farley, involved in
said litigation, amounts to several million dollars; and
said J. P. Farley claims that the proportion thereof to
be paid by the estate of said Norman W. Kittson, deceased,
will absorb all the real estate and personal

10 property belonging to said estate. That said J. P. Farley has never filed in this court any claim or demand, either direct or contingent, based upon the matters or facts alleged in his complaint, or amended bill of complaint, on file in said United States Circuit Court, or involved in said litigation; but your petitioner is advised that said Farley claims that in the event that he shall recover a judgment in said cause, upon the said appeal, or at any time hereafter, and the court so rendering such judgment, shall certify the same to this court, the amount thereof shall be paid in
11 the same manner as other claims allowed against said estate, and by reason thereof said Farley has notified said executor to make no further payments of the legacies or bequests under said last will and testament, and to make no further distribution or division of the estate of said deceased, except at its own risk and peril of being compelled to pay any such judgment as may be so hereafter rendered in his favor, and certified, as aforesaid, notwithstanding any such division and distribution thereof, among the persons entitled thereto.

12 That your petitioner is advised that the litigation involved in said appeal will, in all human probability, be continued for several years before the same shall be finally decided and a final judgment rendered therein; and that many of the legatees and devisees named in said last will and testament are in need, and no reason now exists why the said will should not be executed, and the final accounting had, and the division and distribution of the said estate ordered and made, save and except the pendency of the said litigation, upon said appeal, and the liability (if any) of your petitioner to be compelled to respond to any such possi-

ble judgment, and to pay the same out of its own 13
individual assets and property after all the property and assets of said estate shall have passed out of its hands and possession, by reason of any such final division and distribution pending such litigation.

That the said J. P. Farley is a citizen of the State of Iowa, and resides at Dubuque, in said State; and that Hiler H. Horton. Esq., of the City of St. Paul, in said Ramsey County, an attorney and counsellor of this court, is one of the solicitors and attorneys of record of the said J. P. Farley in his said action hereinbefore particularly described. 14

Wherefore your petitioner prays the order and decree of this court, as follows:

First.—That after notice made and duly given, as required by law, the said account of said executor, herewith filed, may be examined, approved and allowed.

Second.—That the said J. P. Farley, plaintiff in said action, and said J. J. Hill, and the St. Paul, Minneapolis & Manitoba Railway Co., and all persons in any manner interested in the estate of said deceased,
may be cited and ordered to appear before this court, 15
at a time and place to be therein named, and then and there show cause, if any they may have, why the said Executor shall not pay off and satisfy all devises, legacies and bequests under the last will and testament of said deceased, render its final account and petition for the final distribution and division of said estate, according to said will, and according to law, and upon the settlement of said final account, and the entry of such final decree, be forever released and discharged from any and all further liability and responsibility to said J. P. Farley, his heirs or assigns, by reason of any

16 judgment or decree which he may at any time hereafter recover in said litigation, and which may thereupon be certified to this court, after the date of such final settlement and discharge, as aforesaid, or to any or either of the said other defendants named in said litigation, by reason of any claims or demands they or either of them may hereafter have or make against said executor, for contribution or otherwise, by reason of any payments which said other defendants, their successors, heirs, administrators or assigns, may hereafter make upon any such judgment or decree which 17 may hereafter be rendered in favor of said J. P. Farley, his heirs or assigns, in said pending litigation.

And for such other and further order, citation, relief and decree as to this court may seem just and equitable, and your petitioner will ever pray, &c.

THE ST. PAUL TRUST COMPANY,
As executor of the will of Norman W. Kittson, deceased.
By J. W. BISHOP, President.
CHARLES W. EBERLEIN, Secretary.

HARVEY OFFICER,
Attorney for Executor.

18 (Duly verified.)

Filed in Probate Court Jan. 18th, 1890.

Upon filing the foregoing petition the Probate Court entered an order to show cause therein, returnable February 17th, 1890, and directing the manner of service thereof. Upon the return day the petitioner filed due proofs of service of the order to show cause, as therein directed. The order to show cause and proofs of service are included in the return to appeal on file.

The State of Minnesota, Ramsey County. In the Probate Court. 19

In the matter of the estate of Norman W. Kittson, deceased.

At Special Term, March 29th, 1890.

This cause came on to be heard on the 17th day of February, 1890, upon the petition of The St. Paul Trust Company, as the executor of the last will and testament of said deceased, filed in this court in the matter of said estate on January 18th, 1890, and the account of said executor therewith filed, praying for 20
the examination and allowance of its said account, and for the other relief therein prayed for; and upon the order to show cause issued by this court, dated January 18th, 1890, which was returnable on the said 17th day of February, 1890.

And on said return day the said executor duly appeared by Harvey Officer, its attorney, and filed due proofs of the due service of said order to show cause upon the said J. P. Farley, James J. Hill, and The St. Paul, Minneapolis & Manitoba Railway Company, as required and provided in the said order to show 21
cause; and at the same time appeared I. V. D. Heard, Esq., and H. P. Heath, Esq., as attorneys for certain of the children, devisees and legatees named in said last will and testament of said deceased; and also Hon. Geo. B. Young, as the attorney for the said James J. Hill, and for said The St. Paul, Minneapolis & Manitoba Railway Company, in opposition to said application; and no appearance having been made by the said J. P. Farley, named in said petition and order, by attorney or otherwise, the said executor, by its

22 said attorney, and the said I. V. D. Heard and H. P. Heath joining therein, moved the court that the said petition be taken as confessed by the said J. P. Farley, upon default of any appearance or answer thereto on his behalf, and which said motion was thereupon granted, and default entered as against said J. P. Farley.

And thereupon the said James J. Hill, and said The St. Paul, Minneapolis & Manitoba Railway Company, by their said attorneys, and the said I. V. D. Heard and the said H. P. Heath, as attorneys for said heirs,
23 made no objections to the said accounting named in and filed with said petition, and the said account was thereupon duly proved, examined and vouched by this court, and an order thereon has been heretofore duly made and entered by this court. And thereupon, upon the motion of said Geo. B. Young, as attorney for said Hill and for said railway company, the further consideration of the other matters involved in the said petition and order to show cause (other than the said accounting) was continued until the 10th day of March, A. D. 1890, at ten o'clock in the forenoon.

24 And thereupon, upon the said adjourned day, came and appeared all the parties who had appeared as aforesaid by their respective attorneys, and after hearing the arguments of counsel, no answers to said petition having been interposed by any of said parties, and the issues raised having been in the nature of demurrers to the said petition, and to the said order thereon issued, and having duly considered the same,

It is now ordered that said petition (except so far as it asks for the examination and allowance of said account), and the said order heretofore issued upon said

petition, be, and the same are hereby dismissed, and 25
further relief thereunder is denied.

By the Court:

[L. S.] SAMUEL MORRISON,
Judge of Probate.

(Filed March 29, 1890.).

State of Minnesota, County of Ramsey. In the Probate Court.

In the matter of the estate of Norman W. Kittson, 26
deceased.

In the matter of the petition of The St. Paul Trust Company, as executor of the last will and testament of Norman W. Kittson, deceased, filed in said probate court January 18th, A. D. 1890, praying for the order and decree of this court, directing said executor to pay off the legacies and bequests under said will and distribute the estate of said deceased, in accordance with said will and according to law, and the order to show cause thereon, issued by this court, dated
January 18th, A. D. 1890, and returnable February 27
17th, 1890.

To Honorable George B. Young, attorney for James J. Hill, Esq., and for The St. Paul, Minneapolis & Manitoba Railway Company, named in said petition and order to show cause; and to Messrs. I. V. D. Heard, Esq., and H. P. Heath, Esq., attorneys for certain other devisees and legatees named in said will, and who appeared upon said hearing.

You will please take notice, that The St. Paul Trust Company as the executor of the last will and testament of Norman W. Kittson, deceased, hereby ap-

28 peals to the District Court, for the Second Judicial District, in and for said Ramsey County, from that certain order and decree made and entered in the matter of said estate, dated and filed therein, on March 29th, A. D. 1890, whereby the said petition, (except so far as it asks for the examination and allowance of the account of said executor,) and the said order to show cause, heretofore issued upon said petition, was dismissed, and further relief thereunder was denied, and from each and every part and portion of said order, and from the whole thereof.

29 This appeal is taken upon questions of law only, and in good faith, and not for the purpose of delay.

Yours respectfully,

HARVEY OFFICER,

Attorney for said Executor.

The return on file shows due service of the foregoing notice upon the attorneys therein named, and that the same, with proofs of service thereof, was filed in Probate Court, April 1890.

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30 *State of Minnesota, County of Ramsey. District Court.*

In the matter of the estate of Norman W. Kitson, deceased.

After hearing counsel for the St. Paul Trust Company, executor, appellant, and for James J. Hill and the railway company,

Ordered, That the order of the probate court of March 29th, 1890, appealed from by said executor, is affirmed.

April 22, 1890.

HASCAL R. BRILL, Judge.

It is doubtful whether Mr. Hill and the railway company have any standing in court to object to the relief asked. They have not taken any means to establish any claim against the estate contingent or otherwise.

Mr. Farley does not appear in this proceeding. He
is, however, prosecuting his claim against the estate
in a manner authorized by the statute. It is urged
because he does not oppose, and because no one who
has any standing in the case does oppose, that the dis-
tribution should be ordered. The court is authorized 32
to decree distribution only after the debts are paid.
It does not appear in this case that the debts are paid.
On the contrary it does appear that the amount of the
indebtedness is yet undetermined.

The provision of the statute requiring the probate
court to fix a period not longer than three years for
the payment of debts and legacies must be considered
in connection with the other provisions of law for the
establishment of claims and for various other proceed-
ings. If at the end of the period, litigation of such a
nature is pending, as may well be the case, that the 33
assets of the estate are not fixed or the debts not de-
termined, manifestly that provision is not controlling.
If the Farley claim had been presented to the probate
court, and the matter of its allowance was pending,
either there, or in any other court to which it had
been removed, it would not be contended that the
order now asked for should be made. But the stat-
ute, as I construe it, places claims established in ac-
tions against a party pending at the time of his death
which are prosecuted to final judgment, the executor
being made a party, upon the same footing as claims

34 proven in the probate court. It is not stated in the petition that the time limited by the probate court has expired. Such statement is perhaps not necessary, but, aside from this, the petition does not show that the estate is in condition for distribution.

What the condition of the executor might be, if distribution was made and judgment was finally obtained against it, it is not necessary for the court to consider in view of the fact that the executor is asking for, and not opposing the order.

BRILL, J.

35 (Endorsed): 36,397. *Re* estate of Norman W. Kittson, deceased. Order, &c., on appeal. Filed April 22, 1890. R. T. O'Connor, clerk. By J. M. Redding, deputy clerk.

The State of Minnesota, Ramsey County.—District Court, Second Judicial District.

In the matter of the estate of Norman W. Kittson,
36 deceased.

In re the appeal of The St. Paul Trust Company, as the executor of the last will and testament of said deceased, from the order of the Probate Court of said Ramsey County, made and entered therein on March 29th, 1890.

GENTLEMEN: Please take notice that The St. Paul Trust Company, as the executor of the last will and testament of said Norman W. Kittson, deceased, the appellant in above-entitled proceeding, hereby appeals to the Supreme Court of the State of Minnesota from the order of said District Court, made and en-

tered in said cause on the 22d day of April, A. D. 37
1890, whereby the order of said Probate Court was affirmed. This appeal is taken in good faith, and not for the purpose of delay.

Yours respectfully,

HARVEY OFFICER,
Attorney for Appellant.

Dated May 22d, 1890.

To Hon. Geo. B. Young, attorney for respondents, James J. Hill, and The St. Paul, Minneapolis & Manitoba Railway Co., and R. T. O'Conner, Esq., clerk of
said District Court. 38

Served upon above-named attorneys, and filed in District Court, May 22, 1890. (See return.)

150 U.S. 572

FILE
FEB 27 189
JAMES H. McKEN
CLE

IN THE

Supreme Court

OF THE

UNITED STATES.

OCTOBER TERM, 1891.

JESSE P. FARLEY,
Appellant,
vs.
JAMES J. HILL, THE ST. PAUL, MINNEAPOLIS AND MANITOBA RAILWAY COMPANY, AND THE ST. PAUL TRUST COMPANY, EXECUTOR OF THE LAST WILL OF NORMAN W. KITTSON, DECEASED,
Appellees.

LAW ASSOCIATION
PHILADELPHIA

I. Answer of Jesse P. Farley, appellant, to Petition of Norman W. Kittson, Henry Kittson, Louis Kittson and others, heirs of said deceased.

II. Brief and Argument in Opposition to said Petition.

Henry D. Beam and Edward D. Cooke,
Solicitors and Counsel for said Appellant and Respondent.

IN THE

SUPREME COURT OF THE UNITED STATES,

OCTOBER TERM, A. D. 1891.

JESSE P. FARLEY,

Appellant,

vs.

JAMES J. HILL, THE ST. PAUL, MINNEAPOLIS AND MANITOBA RAILWAY COMPANY, AND THE ST. PAUL TRUST COMPANY AS EXECUTOR OF THE LAST WILL OF NORMAN W. KITTSON, DECEASED,

Appellees.

TO THE HONORABLE THE JUSTICES OF THE SUPREME COURT OF THE UNITED STATES:

The answer of Jesse P. Farley, appellant in the above entitled cause, to the petition of Norman W. Kittson, Henry Kittson, Louis Kittson, James E. Kittson, Anna N. Heath, Elizabeth Baker, Hercules L. Kittson, Louis Coyle Kittson, Louisa L. Baker, Marie E. Weaver, and Alfred S. Kittson, a minor, by his next friend, Norman W. Kittson, filed in this Honorable Court in the above entitled cause.

This respondent admits (on information and belief and for the purposes of this answer) that said several petitioners reside as stated by them in their said petition, and that they are the only surviving children of Norman W. Kittson, deceased, and that they are named as legatees, devisees or beneficiaries in his last will and testament, a copy of which last will and testament is appended to said petition.

This respondent admits the death of said Norman W. Kittson in the year 1888, and avers that he died on the 10th day of May, 1888; and also admits the probate of said will and the appointment of said St. Paul Trust Company (a corporation and citizen of Minnesota), as executor thereof, on the 25th day of June, 1888, as in that behalf in said petition alleged.

This respondent admits the commencement by him (while a citizen of the State of Iowa) of the above entitled action, in the United States Circuit Court for the District of Minnesota, against said defendant James J. Hill, said defendant Railway Company, and said Norman W. Kittson, since deceased, each of whom were citizens of the State of Minnesota; and avers that said action was and is a suit in chancery in said court begun on the 13th day of November, 1880.

This respondent admits said Circuit Court obtained jurisdiction of each of said original defendants and of the subject-matter in controversy in said action, the appearance, answer and defense thereto of said Norman W. Kittson (since deceased), and that said cause was pending and undetermined in said Circuit Court at the death of said Norman W. Kittson; and admits that after the death of said Norman W. Kittson the said St. Paul Trust Company, as executor of said last will, was duly substituted as one of the defendants in said action in place of said Norman W. Kittson, deceased. And in that behalf this respondent avers that said substitution was made in accordance with and by a stipulation in writing, dated June 30, 1888 (five days after said will was admitted to probate), signed by said St. Paul Trust Company by its solicitors, and in pursuance of an order of said Circuit Court, dated October 25, 1888, entered *nunc pro tunc* as of July 9, 1888,—which stipulation and order are set forth in full on pages 1313, 1314 and 1315 of the printed transcript of the record in this cause, filed in this court by this respondent in the matter of his appeal herein.

This respondent admits that said cause was thereafter tried; that on or about the 27th day of September, 1889, a decree was entered dismissing this respondent's said bill, and tha this respondent was allowed an appeal from said decree, which appeal was perfected and is still pending in this Honorable Court. But this respondent avers that inasmuch as he was and is a complainant in said action, seeking instead of resisting relief, it was not necessary for the protection of his rights herein that the appeal bond furnished by him herein should be made a *supersedeas*, except as to the costs adjudged against him as such complainant in said Circuit Court, and that as to such judgment for costs said appeal bond was by order of said Circuit Court allowing said appeal and approving said bond, expressly made a *supersedeas*, as by said transcript (p. 1790) will more fully appear.

This respondent is not informed, save by said petition, and therefore neither admits nor denies that said Trust Company, as executor as aforesaid, has proceeded to administer said estate, and paid and discharged all the debts and claims against said deceased, or that said executor has paid or advanced such of or so much of the pecuniary legacies and bequests named in said will as not to affect substantially the claims of this respondent herein, or whether an account of such payments (if any such payments were made) has been filed or allowed in said Probate Court. And this respondent is advised by counsel, and therefore charges and claims, that if any such payments or advances have been made by said executor, under said will, or otherwise, either with or without the order or direction of said Probate Court (as in said petition alleged), such payments and advances are and will be, nevertheless, subject to review and allowance or disallowance by the said Circuit Court of the United States and this Honorable Court, on an accounting in this cause between this respondent and said executor, in the event that this respondent shall ultimately prevail in this cause and maintain his claim against said Norman W. Kittson and said executor, and that the jurisdiction of said Probate Court in the premises is subordinate to the jurisdiction of said Circuit Court and of this Honorable Court.

This respondent admits on information and belief (but for the purposes of this answer only), that the value of the estate of said testator not distributed in said alleged administration is several millions of dollars; but denies that said petitioners by themselves or through the said trustee (said Trust Company) are, under and by the provisions of said will, entitled to all or nearly all of said estate and property, and avers that under and by the fifth, sixth, seventh, eighth, ninth, tenth and eleventh sections of said will, divers large and substantial provisions, gifts, devises and bequests are made in favor of other persons than said petitioners.

This respondent admits his claim against said executor in the premises "is very large, exceeding more than a million of dollars in amount;" and that he has never filed any claim in said Probate Court in the premises; but this respondent does not know nor does he admit or deny that, except for the substitution of said executor as defendant in said action, in place of said Norman W. Kittson, deceased, said estate would have been long since fully closed up, distributed and settled in said Probate Court, as is alleged in said petition.

This respondent admits said executor did on or about the 18th day of January, 1890, file its petition in said Probate Court for leave to close up and distribute said estate, and admits the citation of this respondent, said James J. Hill and said railway company, to show cause against said petition; that this respondent did not appear thereto or oppose the same, though said Hill and said railway company did appear and oppose the same; that said petition was denied in said Probate Court and in the State Circuit Court, and that the Supreme Court of Minnesota affirmed said decisions. This respondent prays leave to refer to the decision and opinion of the Supreme Court of Minnesota, in said cause appealed to it, for a statement of the grounds upon which said executor's petition was denied, instead of the averments in that behalf contained in said petition in this court. This respondent admits no one opposed said executor's petition, except said Hill and said railway company, but avers no other opposition was necessary.

This respondent admits "that the bulk of said estate in amount and value is devised or bequeathed to" said petitioners directly, or to said trust company as trustee for certain of said petitioners, but again denies that said petitioners are by said will entitled to all or nearly all of said estate and property; and in that behalf again refers to said sections five to eleven of said will.

This respondent avers that by reason of the great lapse of time since his cause of action arose against said Norman W. Kittson, deceased (to wit, since the year 1879), this respondent's said claim and demand has been greatly increased, to wit, by the amount of the interest lawfully and equitably accrued to this respondent upon his said claim and demand since about the year 1879; whereby said claim and demand of this respondent against said executor now amounts to as much or nearly as much as the full value of all the real and personal property of said Norman W. Kittson, which has hitherto come to the hands and possession of said executor.

This respondent denies that, under the laws of Minnesota, the assets of said estate, in case they were distributed to said petitioners, who are, as they allege, residents of various States of the United States, could "be subjected within a reasonable time to the claim of" this respondent, in case he ultimately prevailed in said action But this respondent is further advised and claims that he has a right to look to and be protected by the laws of the United States and the procedure of the courts of the United States, instead of the laws and procedure of the State of Minnesota and the courts of Minnesota, should there be any conflict or variance between such laws or procedure; and this respondent accordingly relies upon and claims the right to have the said action now pending on appeal to this Honorable Court, continued against the said St. Paul Trust Company as executor as aforesaid, under and in pursuance of said stipulation, and under said order of said Circuit Court, substituting said executor as defendant herein in the place of said Norman W. Kittson, deceased, and under and by virtue of Section 955 of the Revised Statutes of the United States, and the rules and practice of the courts of the United States in such cases made and provided.

Having fully answered said petition filed in this Honorable Court, this respondent and appellant prays judgment of th said petition, and that the same may de disallowed, and the prayers thereof denied. All of which is humbly and respectfully submitted.

JESSE P. FARLEY.

HENRY D. BEAM,
EDWARD D. COOKE,
Counsel for said respondent and appellant.

UNITED STATES OF AMERICA, } ss.
Northern District of Iowa. }

Jesse P. Farley being duly sworn deposes and says that he is the appellant named in the above entitled cause, and the respondent whose name is signed to the foregoing answer; that he has read the said answer and knows the contents thereof, and that the same is true to the best of his knowledge, information and belief.

JESSE P. FARLEY.

Subscribed and sworn to before me by the said Jesse P. Farley, the said affiant, this 23d day of February, A. D. 1892.

ALFRED HOBBS.

[SEAL.] United States Commissioners for the Northern District of Iowa.

IN THE

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, A. D. 1891.

JESSE P. FARLEY,
Appellant,
vs.
JAMES J. HILL, THE ST. PAUL, MINNEAPOLIS AND MANITOBA RAILWAY COMPANY, AND THE ST. PAUL TRUST COMPANY AS EXECUTOR OF THE LAST WILL OF NORMAN W. KITTSON, DECEASED.
Appellees.

Appeal from the Circuit Court of the United States, for the District of Minnesota.

Brief and argument in behalf of Jesse P. Farley, appellant, against the petition of the heirs of said Norman W. Kittson, deceased, to substitute them as defendants and appellees in place of said executor.

STATEMENT OF THE CASE.

This is a bill to compel a discovery, accounting, and the delivery to complainant of certain stock, funds and property in the hands of defendants Kittson, Hill and the St. Paul, Minneapolis & Manitoba Railway Company, being the proceeds and profits of a joint undertaking carried out between the complainant and the defendants. The case grows out of the sale under foreclosure decrees of the railroad lines and other property of the St. Paul & Pacific R. R. Co. and the First Division of the St. Paul & Pacific R. R. Co. and the acquisition thereof by the defendant, the St. Paul, Minneapolis & Manitoba Railway Company, through the use of certain mortgage bonds, purchased and held by defendants Kittson and Hill for the joint account, use and benefit of themselves and complainant.

The defendants Kittson, Hill, and the Manitoba Railway Company, having come into the possession of the proceeds and profits of this undertaking, including a large amount of stock and bonds of said company, and other property, and having refused to account with complainant, or to deliver to him his share of said profits and proceeds, on November, 13, 1880, he filed his bill, and on December 15, 1880, his amended bill, in the Circuit Court of the United States for the District of Minnesota.

The cause was heard in said court upon a plea filed by defendants, and on July 15, 1882, a decree was entered dismissing the bill of complaint. From this decree complainant appealed to this court and after argument, this court, on February 7, 1887, reversed the said decree and remanded this cause to the said Circuit Court, with directions to overrule the plea of the defendants, and to order them to answer the bill. The opinion of this court is reported in 120 U. S. Rep. 303, *Farley* v. *Kittson*.

The cause having been redocketed in the said Circuit Court at the March term thereof, A. D. 1887, and an order entered requiring the defendants to answer the bill, said defendants, Norman W. Kittson, James J. Hill, and the St. Paul, Minneapolis & Manitobia Railway Company, on June 6, 1887, filed their joint and several answer, and on June 23, 1887, complainant filed his replication thereto.

Afterward, and after complainant had closed his proof in chief, and after a considerable portion of defendant's evidence had been taken, one of said defendants, Norman W. Kittson, departed this life on the 10th day of May, 1888, and his death was suggested upon the record. (Vol. 2, p. 1104.)

On June 30, 1888 a stipulation in said cause was signed and filed and afterward an order based thereon was entered as follows (Record herein, Vol. 2, p. 1313-1315):

United States of America. District of Minnesota, ss.
In the Circuit Court of the United States, for the District of Minnesota. In Chancery.

Jesse P. Farley, Complainant,
v.
Norman W. Kittson, James J. Hill, and the St. Paul, Minneapolis & Manitoba Railway, Company, defendants.

Whereas, since the filing of the bill of complaint in this cause, and since the filing of the joint and several answer of the above named defendants, Norman W. Kittson, James J. Hill, and the St. Paul, Minneapolis & Manitoba Railroad Company, the said Norman W. Kittson, one of said defendants, departed this life, testate, on the 10th dav of May, A. D. 1888.

And, whereas, the said Norman W. Kittson, deceased, in in and by his last will and testament, nominated and appointed as the sole trustee and executor thereof, the St. Paul Trust Company (a corporation duly organized and existing under the laws of the State of Minnesota), which said last will and testament was duly admitted to probate in and by the Probate Court of Ramsey county in said State of Minnesota on or about the 25th day of June, A. D. 1888; and the said St. Paul Trust Company was then and there by said court duly appointed the sole executor of said last will and testament, and then and there duly accepted such trust and qualified as such executor.

Now, therefore, the said St. Paul Trust Company, as sole executor as aforesaid, by R. B. Galusha and I. V. D. Heard, its solicitors, and George B. Young, its counsel, hereby enters its appearance as a party defendant in the above entitled cause.

And it is hereby stipulated and agreed that said suit be and it is hereby revived and continued as against said executor; and all parties to this suit, including said executor, agree that no objection shall be made to the depositions in behalf of the defendants herein, which were taken or completed after the death of said Norman W. Kittson, on the ground or for the reason that said revival and substitution (hereby provided for) was not made before the taking or completing of said depositions in whole or in part.

And it is hereby agreed and stipulated by and between the parties to said cause, to wit, by the said Jesse P. Farley, complainant, by Hiler H. Horton, and Beam & Cooke his solicitors, and by the said defendants, James J. Hill, the St Paul, Minneapolis & Manitoba Railway Company, and the St. Paul Trust Company, as sole executor of the last will and testament of Norman W. Kittson, deceased, by George B. Young, H. R. Bigelow, I. V. D. Heard and R. B. Galusha, their respective solicitors, that the said defendants shall have until August 15, 1888, wherein to close their proofs before Oscar B. Hillis, the notary public appointed to take the same by stipulation heretofore entered into and filed in this cause, and that the said complainant shall have sixty days thereafter wherein to close his proofs in rebuttal; provided, however, that said complainant shall have the privilege of closing his proofs in rebuttal in thirty days instead of sixty days if it shall be practical for him to do so.

Nothing in this stipulation shall operate as a waiver by any party to this suit of any objection which such party might otherwise have a right to take to any evidence introduced by either party before the death of said Kittson arising from the fact of the death of said Kittson since the commencement of this suit, or for any other reason or cause whatsoever. June 30th, 1888.

HILER H. HORTON, BEAM & COOKE,
Solicitors for Complainant.

H. R. BIGELOW, GEO. B. YOUNG,
Solr's for Defts., J. J. Hill and the St. Paul, M. & M. Ry. Co.

R. B. GALUSHA, I. V. D. HEARD,
Sol'rs for St. Paul Trust Co, Exr. of will of N. W. Kittson, dec'd.

Endorsed: "Filed June 30, 1888. OSCAR B. HILLIS, Clerk."

United States Circuit Court, District of Minnesota.
In Equity.
JESSE P. FARLEY, Complainant,
vs.
NORMAN W. KITTSON ET AL., Defendants.

Upon the stipulation of the plaintiff and of the defendants, James J. Hill and the St. Paul.' Minneapolis & Manitoba Railway Company, and the St. Paul Trust Company, executor of the last will and testament of Norman W. Kittson, deceased, one of the original defendants, it appearing that the said defendant, Norman W. Kittson, departed this life on the 10th day of May 1888, and that the said St. Paul Trust Company, on the 25th day of June 1888, became the duly appointed and qualified executor of the last will and testament of the said Norman W. Kittson, and the said executor having entered its appearance in this cause by its solicitors and counsel, it is ordered that this cause stand revived and continued as against the said executor of said Norman W. Kittson, deceased, with the same effect in all respects as if a bill of revival had been filed by the plaintiff, and an order reviving said cause had been made pursuant to said bill.

The foregoing order having been agreed upon, drawn up and filed on July 9, 1888, to be entered on that day in the common rule book and the same having inadvertently failed to be so entered, it is agreed that the same be entered therein *nunc pro tunc* as of the said date, July 9, 1888.

Dated October 25, 1888

H. R. BIGELOW, R. B. GALUSHA, I. V. D. HEARD, GEO. B. YOUNG, Sol'rs for Def'ts.

HILER H. HORTON, BEAM & COOKE, Sol'rs for Compl't.

Thereupon the cause was proceeded with and proofs on either side taken and closed, the cause came on for hearing at the December term 1888, of the Circuit Court, and on the 27th of September, 1889, that court entered a decree dismissing the bill; from which decree complainant was allowed and duly perfected an appeal to this court. The case was docketed at the October term, 1889, and said appeal is still pending and undetermined in this court.

ARGUMENT.

We submit that the course which was pursued in this case upon the death of Mr. Kittson was precisely that laid down by the recognized practice in courts of chancery, by the rules of the United States Courts in equity, by the rules of this court, and by the statutes of the United States and of the State of Minnesota; that the executor of the deceased defendant was the only proper party to be substituted, and that there is no warrant of law or authority for this application of the heirs to be substituted in the place of the executor and to have the executor dismissed out of the suit.

The Revised Statutes of the United States provide as to the death of parties:

"Sec. 955. When either of the parties, plaintiff, or petitioner, or defendant, in any suit in any court of the United States, dies before final judgment, the executor or administrator of such deceased party may, in case the cause of action survives by law, prosecute or defend any such suit to final judgment. The defendant shall answer accordingly; and the court shall hear and determine the cause and render judgment for or against the executor or administrator, as the case may require. And if such executor or administrator, having been duly served with a *scire facias* from the office of the clerk of the court where the suit is depending, twenty days beforehand, neglects or refuses to become party to the suit, the court may render judgment against the estate of the deceased party, in the same manner as if the executor or administrator had voluntarily made himself a party" * * * .

Rule 56 of the Rules of Practice for the Courts of Equity of the United States, provides :—

"Bill of Revivor, when proper :—Whenever a suit in equity shall become abated by the death of either party, or by any other event, the same may be revived by a bill of revivor, or a bill in the nature of a bill of revivor, as the circumstances of the case may require, filed by the proper parties entitled to revive the same, which bill may be filed in the clerk's office at any time; and upon suggestion of the facts, the proper process of subpoena shall, as of course, be issued by the clerk, requiring the proper representatives of the other party to appear and show cause, if any they have, why the cause should not be revived. And if no cause shall be shown at the next rule day which shall occur after fourteen days from the time of the service of the same process, the suit shall stand revived as of course."

In the case at bar, the St. Paul Trust Company, as sole executor of the last will and testament of Norman W. Kittson, the deceased defendant, voluntarily entered its appearance as a party defendant in this cause; and by stipulation in writing and entered of record, of all of the parties plaintiff and defendant, including said executor, the suit was revived and continued as against said executor. And by the order of the court, based upon said stipulation, it was "ordered that this cause stand revived and continued as against the said executor of said Norman W. Kittson, deceased, with the same effect in all respects as if a bill of revival had been filed by the plaintiff, and an order reviving said cause had been made pursuant to said bill." (Record herein Vol. 2, pp. 1314, 1315.)

There can be no doubt that, under the general law, under the rules of practice in the United States Courts in Equity, and under the Statutes of the United States, in all personal actions, which survive, and in all actions at law or in equity affecting the personal estate of the deceased, the executor or administrator is the only proper party, by or against whom the suit may be revived and prosecuted to final judgment.

It is equally clear that the case at bar is such a personal suit It is for discovery, accounting and delivery of stocks, bonds and other property which have come into the possession of the defendant, clothed with a trust in favor of complainant, as to an undivided one-third thereof. In such a case the personal representative, the executor or administrator of a party who has been served with process, and who dies before judgment or decree, is the only proper party against whom to revive the suit.

Mandeville v. *Riggs*, 2 Peters 487.
Green v. *Watkins*, 6 Wheaton, 260.
Clarke v. *Matthewson*, 12 Peters, 170.
Macker's Heirs v. *Thomas*, 7 Wheaton, 530.
McCoul v. *LeKamp's* Adm'rs, 2 Wheaton, 111.
Hatch v. *Eustis*, 1 Gallison, 163.
Ventress v. *Smith*, 10 Peters, 169.

"Upon the death of some of the parties to the bill, who had been served with process, the suit ought to have been revived against their personal representatives, if they could be brought before the court, unless some good reason, such as absolute insolvency, could be assigned to justify the omission."

Mandeville v. *Riggs*, 2 Peters, 487.

Mr. Justice Story: "There is a material distinction between the death of parties, before judgment and after judgment, and while a writ of error is depending. In the former case, all personal actions, by the common law, abate; and it required the aid of some statute, like that of the 31st section of the Judiciary Act of 1789, Ch. 20, to enable the action to be prosecuted by or against the personal representative of the deceased, when the cause of action survived."

Green v. *Watkins*, 6 Wheaton, 260.

Mr. Justice Washington, delivering the opinion of the court in *Macker's Heirs* v. *Thomas*, said:

"The main question for the decision of the court is, whether the Circuit Court erred in directing the suit to be revived against the heirs of Macker, and rendering judgment against them? The court consider this point to have been decided in the case of *Green* v. *Watkins*. 6 Wheat. 260. The question there was, whether in real actions, the death of either party, after a writ of error sued out, abates the suit? And it was decided that it did not. But in examining the general principles of law upon the subject of abatement by the death of parties, it was distinctly laid down, that in real and personal actions, the death of either party, before judgment, did, at common law, abate the suit; and that the 31st section of the Judiciary Act of 1789, Ch. 20, was necessary to enable the action to be prosecuted by or against the representatives of the deceased party, when the cause of action survived. But this section is clearly confined to personal actions, as the power to prosecute or defend is given to the executor or administrator of the deceased party, and not to the heir or devisee."

Măcker's Heirs v. *Thomas*, 7 Wheaton, 530.

"The death of either party, pending the suit, does not, where the cause of action survives, amount to a determination of the suit. It might, in suits at common law, upon the mere principles of that law, have produced an abatement of the suit, which would have destroyed it. But in courts of equity, an abatement of the suit, by the death of a party, has always been held to have a very different effect, for such abatement amounts to a mere suspension, and not to a determination, of the suit. It may again be put in motion by a bill of revivor, and the proceedings being revived, the cause proceeds to its regular determination, as an original bill. The bill of revivor is not the commencement of a new suit, but is the mere continuation of the old suit. * * *

"But if any doubt could, upon general principles, be entertained upon this subject, we think it entirely removed by the 31st section of the Judiciary Act of 1789, Ch. 20. That section provides, that where, in any suit pending in the courts of the United States, either of the parties shall die before final judgment, the executor or administrator of such deceased party, who was plaintiff, petitioner or defendant, in case the cause of action doth by law survive, shall have full power to prosecute or defend any such suit or action until final judgment, and that the defendant shall be obliged to answer thereto accordingly; and the court before whom the cause is depending, is empowered and directed to hear and determine the same, and to render judgment for or against the executor or administrator, as the case may require.

Other auxiliary provisions are made to carry this enactment into effect. Now, in this section, Congress manifestly treat the revivor of the suit, by or against the representative of the deceased, as a matter of right, and as a mere continuation of the original suit, without any distinction as to the citizenship of the representative, whether he belongs to the same State where the cause is depending, or to another State. Of the competency of Congress to pass such an enactment, under the Constitution, no doubt is entertained. The present case falls directly within its purview, and we are, therefore, of opinion, that the decree of the Circuit Court dismissing the bill of revivor, ought to be reversed and the cause remanded to the Circuit Court for further proceedings." Mr. Justice Story, in

Clark v. *Mathewson*, 12 Peters, 170.

Counsel for petitioners discuss at some length the Minnesota statutes and decisions relating to this question. We submit that the provisions of Sec. 111, Ch. 6, of the Probate Code of Minnesota, in force October 1, 1889, which re-enacts Sec. 16, Ch. 53, of the Gen. St. 1878, are in effect the same as those of Sec. 955 of the Revised Statutes of the United States. That section of the Probate Code is as follows: "Sec. 111. All actions which are pending against a deceased person at the time of his death, may, if the cause of action survives, be prosecuted to final judgment; and the executor or administrator may be admitted to defend the same, and if judgment is rendered against the executor or administrator, the court rendering it shall certify the same to the Probate Court, and the amount thereof shall be paid in the same manner as other claims allowed against the estate."

In the case referred to by counsel for petitioners, "*In re Kittson's Estate*," (*The St. Paul Trust Company* v. *Hill et al.*, 45 Minn. 197), the Supreme Court of Minnesota held that the above quoted Sec. 111, was applicable to actions pending in the Federal Courts in Minnesota, against a citizen of that State at the time of his death. And Mr. Justice Collins delivering the opinion of the court, in answer to the objection that Mr. Farley (the complainant herein) had not appeared in the Probate Court and opposed the application for distribution of the estate, said:

"Mr. Farley's right to revive and continue his action against the representative of the deceased defendant was fixed by statute, and this right he was enforcing in a tribunal provided for a determination of the justice of the claim. Had he appeared when cited, and made objection, resting his case and opposition upon the petition solely, would it have been proper for the Probate Court to have parceled out the estate among the devisees and legatees, without regard to his demand? We think not, for Mr. Farley was entitled to a final determination upon the merits of his case, and should he finally obtain judgment in his favor, entitled, also, to have it paid by appellant, and out of the assets of the estate in its hands. There was no provision of chapter 53 (by which chapter this case must be determined) requiring Mr. Farley to exhibit his claim to the Probate Court for any purpose whatever, until it should take the form of a judgment, and had he appeared when cited, it must be apparent that his objection to distribution could not have been ignored. If it could, any claim in litigation in another tribunal could have been disregarded with equal propriety, for no real distinction can be pointed out between the claim in question, while being litigated in a Federal Court, and the same demand pending in the Supreme or a District Court of this State, on appeal from an order of the Probate Court or otherwise."

In re Kittson's Estate, 45 Minn. 197.

It is true the court in the case last cited, said: "The limitation as to time, found in section 117 of chapter 46, *supra*, is a new feature of the probate law in this State, and might materially affect this case, *if applicable*."

That section is as follows:

"Section 117. The Probate Court may, upon good cause shown by the executor or administrator, extend the time for the settlement of the estate, not exceeding one (1) year at a time, nor so that the whole time allowed to the original executor or administrator shall exceed three (3) years, unless under the provisions of the will a longer time be necessary." (Sec. 117, Ch. 7, Probate Code of Minnesota.)

In the first place, the Supreme Court of Minnesota, in the case last cited, held that this section was not applicable to the case at bar. And in the second place we submit that under the decision of this court in *Payne* v. *Hook*, 7 Wall. 587, and cases cited therein, the complainant's right to pursue his remedy in the courts of the United States, which have acquired complete jurisdiction of the case, could not be limited or nullified by the probate laws of Minnesota.

Counsel for petitioners, in support of their application, refer to the cases of *Payne* v. *Hook*, 7 Wallace 425, and *Borer* v. *Chapman*, 119 U. S Rep. 587.

As to the latter case counsel say: "The Supreme Court of the United States made a substitution of Mr. Borer as administrator with the will annexed, in place of a deceased executor." We can not see how this is an authority in support of a petition to dismiss the executor out of the suit, and substitute in its place the several heirs of the deceased.

As to *Payne* v. *Hook* and *Borer* v. *Chapman*, *supra*, we consider them strong authorities in support of our position that this petition is governed entirely by the Statute of the United States and the rules and practice of the Federal Courts.

In *Payne* v. *Hook*, which was a bill brought by a citizen of Virginia, in the Circuit Court of the United States for Missouri, against the public administrator of Calloway County, in that State, and his sureties on his official bond, all citizens of Missouri, to obtain her distributive share of an estate, Mr. Justice Davis, delivering the opinion of this court, said:

"The jurisdiction of the Circuit Court for Missouri to hear this cause is denied, because, in that State, exclusive jurisdiction over all disputes concerning the duties or accounts of administrators, until final settlement, is given to the local County Court, which is the court of probate; and as the administration complained of is still in progress in the County Court of Calloway County, resort must be had to that court to correct the errors and frauds in the accounts of the administrator.

"The theory of the position is this: that a Federal Court of chancery, sitting in Missouri, will not enforce demands against an administrator or executor, if the court of the State, having general chancery powers, could not enforce similar demands. In other words, as the complainant, were she a citizen of Missouri, could obtain a redress of her grievances only through the local court of probate, she has no better or different rights because she happens to be a citizen of Virginia.

"If this position could be maintained, an important part of the jurisdiction conferred on the Federal Courts by the Constitution and laws of Congress, would be abrogated. As the citizen of one State has the constitutional right to sue a citizen of another State in the courts of the United States, instead of resorting to a State tribunal, of what value would that right be, if the court in which the suit is instituted, could not proceed to judgment, and afford a suitable measure of redress? The right would be worth nothing to the party entitled to its enjoyment, as it could not produce any beneficial results. But this objection to the jurisdiction of the Federal tribunals has been heretofore presented to this court, and overruled.

"We have repeatedly held 'that the jurisdiction of the courts of the United States over controversies between citizens of different States, can not be impaired by the laws of the States which prescribe the modes of redress in their courts, or which regulate the distribution of their judicial power.' If legal remedies are sometimes modified to suit the changes in the laws of the States, and the practice of their courts, it is not so with equitable. The equity jurisdiction conferred on the Federal Courts is the same that the high court of chancery in England possesses; is subject to neither limitation or restraint by State legislation, and is uniform throughout the different States of the Union."

Payne v. *Hook*, 7 Wall. 429–430.

In the absence of any authorities in support of their application, petitioners rely upon the hardship of their position, and appeal to the equitable inclinations of the court to assist them in procuring an early distribution of their estate. We submit that the equities of the appellant are equally great; that if delay has intervened it is not by his fault; that he has prosecuted his suit as promptly and vigorously as the circumstances of the case, and the condition and volume of the business before the courts would permit. And that he should not, in case of a final decree in his favor, be left to pursue his remedy against numerous heirs, scattered through different States, whose several shares of the property might be totally dissipated long before the end of the accounting to which he would be entitled.

Respectfully submitted,

HENRY D. BEAM, and

EDWARD D. COOKE,

Solicitors and of Counsel for Appellant and Respondent.